



ANNUAL REPORT 2014



**REFORMS
TAKING ROOT
INNOVATIONS
BEARING FRUIT**





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MESSAGE FROM THE SECRETARY



02 Apr. 2014, Muñoz, Nueva Ecija,
Lakbay Palay at PhilRice



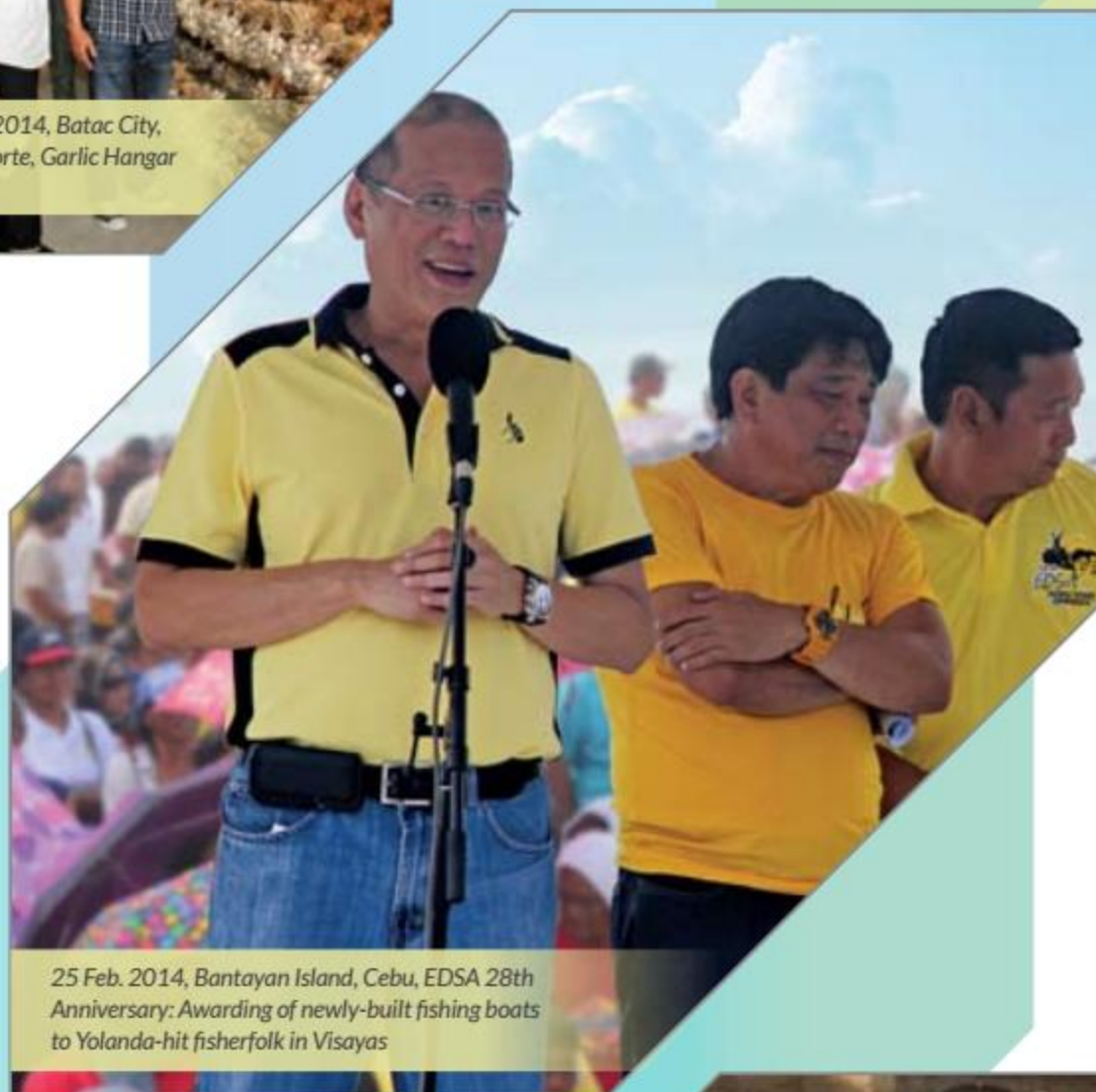
23 Jun. 2014, Batac City,
Ilocos Norte, Garlic Hangar
Storage



06 Sept. 2014 Mulanay,
Quezon, Agri Rehab Program
after Typhoon Glenda



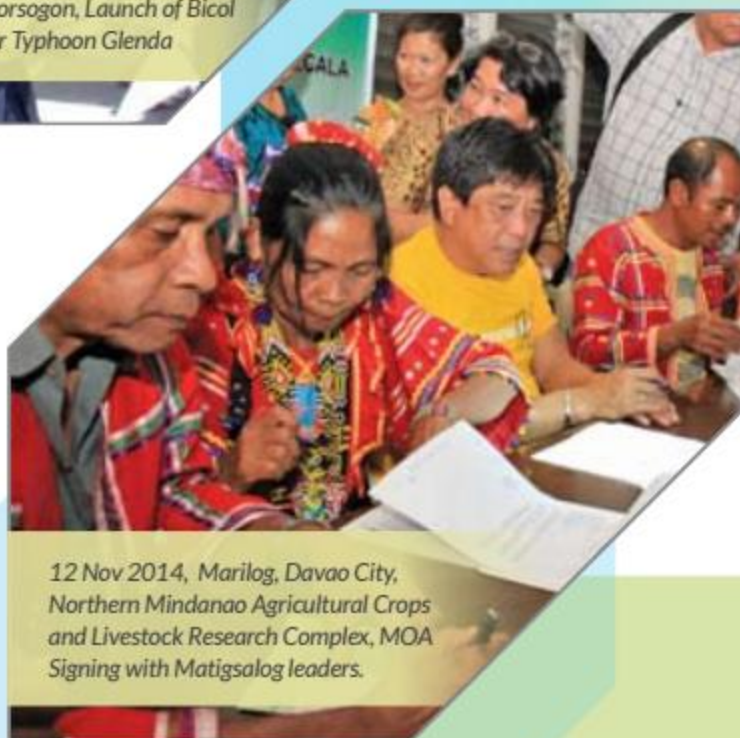
08 May 2014, Barotac Viejo,
Iloilo, Groundbreaking ceremony
of small water impounding
project



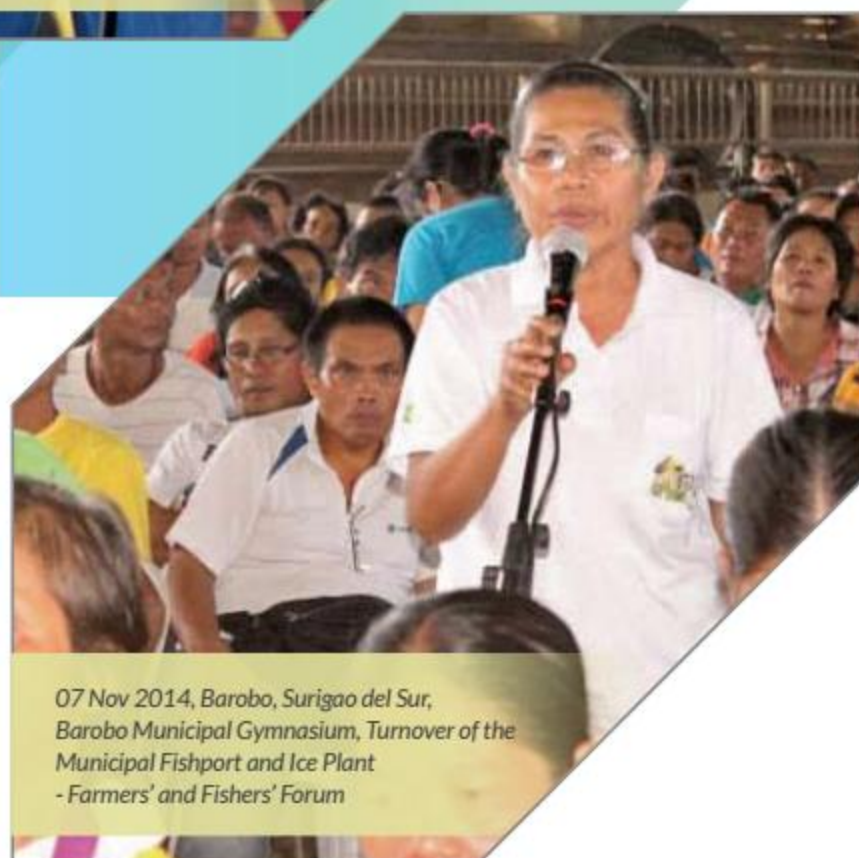
25 Feb. 2014, Bantayan Island, Cebu, EDSA 28th
Anniversary: Awarding of newly-built fishing boats
to Yolanda-hit fisherfolk in Visayas



01 Aug. 2014 Sorsogon, Launch of Bicol
Rehab Plan after Typhoon Glenda



12 Nov 2014, Marilog, Davao City,
Northern Mindanao Agricultural Crops
and Livestock Research Complex, MOA
Signing with Matigsalog leaders.



07 Nov 2014, Barobo, Surigao del Sur,
Barobo Municipal Gymnasium, Turnover of the
Municipal Fishport and Ice Plant
- Farmers' and Fishers' Forum

Ang Kuwento, Kuwenta at Kita sa Agrikultura

Sa ilalim ng pamumuno ni President Aquino, tumanggap ang agrikultura ng pinakamalaking alokasyon ng budget sa kasaysayan ng bansa. The budget allocated by the Aquino Administration for Agriculture from 2011 to 2015 amounted to PHP339.7 billion while the agriculture budget for the 17-year period of 1994-2010 amounted to only PHP340.9 billion.

Ang naging katumbas nito ay ang pagkamtan ng Pilipinas ng pinakamataas na produksyon ng palay sa kasaysayan at ang tuloy-tuloy na pagtaas nito sa bawat taon na di nakayang ibaba ng malalakas na bagyo at baha. Naturingan din ang Pilipinas na “world’s fastest-growing rice producer” sa taong 2014.¹

Tinumbasan din ito ng pag-upgrade ng mga laboratoryo at demo farms, pagdisenyo ng mga bagong makinaryang pambukid, pagtatalaga ng mga nagsanay na fishery law enforcer at iba pa na nakalahad sa Annual Report na ito.

Tungkol sa kabuhayan ng magsasaka, ayon sa ulat ng Philippine Statistical Authority, ang netong kita ng iba’t ibang magsasaka ay nagtala ng mabilis na pagtaas sa loob ng nakaraang tatlong taon, 2011-2013. Patuloy rin ang naging pag-unlad ng agricultural export industry.

Dahil sa sapat na budget, nagkaroon ng pondo para sa imprastruktura tulad ng farm-to-market roads, irigasyon at post-harvest facilities. Binigyang diin ang paghahatid ng public goods na hindi kayang gastusan ng mga magsasaka sa halip na mga farm inputs na abot-kaya na ng mga magsasaka. Nakita ring mas epektibo kung sila ang bibili ng mga farm inputs dahil masusunod ang “farmers’ choice.”

We are grateful to have weathered attacks during the year — from distortions in rice and garlic prices to the proliferation of coconut pests and issues on irrigation projects. Throughout these challenges, we stood side by side with farmers and fisherfolk. We delivered ground-level results including yield-driven — not just harvest area expansion — growth in rice and corn production, bountiful onion and garlic harvests, new farm machinery for cassava growers and processors, and targeted financing programs

including credit, guarantees and insurance. We also expanded the line of export products and destinations, undertook landmark benchmarking studies, developed science-based tools to guide agri-fishery infrastructure investments, and engaged farmers and fishers in value chain-related enterprises.

The DA 2013 Annual Report answers the question: What do all these mean to Juan? The report contains an account of the programs and activities by commodity and by service.

In 2014, well into the second half of this administration, we focused on ensuring that the programs laid out will continue to serve agri-fishery stakeholders and contribute to nation-building beyond our term.

The guiding questions for the year were: What programs will continue to benefit Juan beyond 2016, and how?

Sa bawat kuwento at kuwenta, may hatid na dagdag na kita!

We take this call seriously by requiring every sub-project under the Philippine Rural Development Project to commit to a level of increased income that farmers and fishers should gain as they participate. We installed measures to ensure quality and climate-resilient infrastructure and invested in social preparation to enable farmers and fishers to access various value-adding trading posts and processing facilities and engage directly with assemblers and buyers.

The agriculture sector has significantly shifted from the narrow production focus to a value-chain approach. Farmers and fishers have started to engage in activities beyond the farmgate. Filipinos who buy the produce of the country’s agriculture sector complete the cycle of agricultural progress.

Ipagpatuloy po natin ang masaganang ani at magandang buhay!



PROCESO J. ALCALA
Secretary

¹Based on data from USDA April 2014 issue of *Grains: World Market and Trade*. Retrieve from <http://usda.mannlib.cornell.edu/usda/fas/grain-market//2010s/2014/grain-market-04-09-2014.pdf>.



Reforming by Doing Agriculture 2010-2014

In 2010, the Department of Agriculture (DA) was a 112 year old organization with some 20,000 employees. Six Secretaries of Agriculture led the Department over a period of nine and a half years during the preceding administration. The DA bureaucracy was composed of 15 regional offices, 27 operating/service units, nine bureaus and 14 attached agencies and corporations.

What to do and how to avoid “analysis paralysis”? This was the challenge from the start of this administration. The response was simple: “Let us do agriculture the way it should be done.” The guiding principles of Agrikulturang Pilipino were not new, but the points of emphasis needed to be clear and consistent: food sufficiency and increased farmers’ incomes, resource sustainability, focus on public goods, farm-to-table interventions, broad partnership with stakeholders.

An unfinished Agriculture and Fishery Modernization Plan was on the table. Commodity road maps were in varying stages of completion. Immediate engagement with farmers, fishers and local government units was the main strategy for validating strategies, analyses and plans. Upon touching ground, irrigators’ associations, local executives, various organizations were sought as partners under various programs. DA Regional Executive Directors were tasked to lead various DA operating units in the regions in service delivery.

New experiences in dealing with the DA emanated from: Makina Saka events, where farmers met the suppliers of farm equipment that form part of the farm mechanization program; Sikat Saka, an individual credit program introduced as an option for those burdened by group loans, making “farmers’ choice” a reality through access to credit, guarantee and insurance – giving farmers the power to choose the supplier of inputs, the variety of seeds to use, and the services to hire; contractors and local government engineering teams trained in geotagging – the new standard requirement when proposing farm-to-market roads; commercial fishers’ agreement to an annual “closed season” to regenerate fishing grounds;

and quick turn-around during calamities with the use of seed buffer stocks.

The Aquino administration made these programs possible by allocating the highest ever DA budget in history – equalling the agriculture budget of three previous Presidents of the Philippines.

While testing, moving and innovating within the rice, corn, cassava, high value crops, livestock and fishery programs, various reforms were designed and laid out community by community, region by region.

Doing agriculture with the players included watching closely what worked and what did not. By midterm, in 2013, the DA had put together the Philippine Rural Development Project (PRDP), a six-year (2014 to 2020) platform for reform that embodies the principles of Agrikulturang Pilipino and mainstreams science-based tools developed alongside partners in program implementation that would guide DA engagement with agri-fishery stakeholders.

The year 2014 was a test run for PRDP. The Department of Finance and the World Bank signed the loan agreement for PRDP funding in September 2014, and the loan was declared effective in December 2014. Likewise, the period from 2014 to early 2015 saw the rolling out of longer-gestating projects, such as the trading posts, the completion of the upgrading of laboratories and stock farms, and the huge private sector response to farm mechanization.

The Annual Report 2014 contains a review of the DA performance in 2014 while highlighting the reforms that have been put in place.

By 2015, the DA had touched the hands and hearts of farmers and fishers, governors, mayors and other local officials, legislators and private organizations that have become active partners in doing agriculture and delivering the commitments of the sector.

It is completely understandable that not all the reforms may be adopted in the future, but the following are refinements of specific functions that the DA passes on for their proven value in doing agriculture well:

Function	Reform
Infrastructure	Geotagging from project identification to project completion and monitoring. Climate-smart designs, including the concreting of farm-to-market roads and the concrete lining of irrigation canals.
Operations	Regional Executive Director as manager of DA operating units in each region. Ulat sa Bayan, a regular forum for reporting on performance and informing about plans, as a tool for transparency and local engagement.
Planning	Combining rootedness in operations, strategic macroeconomic directions, and links with overall national policies and goals.
Research	The benchmarking study of rice production costs in six Asian countries and the third party assessment of the FSSP are models of research undertakings with direct policy impact. Likewise, the research collaboration with the International Rice Research Institute and PhilRice provides examples of undertakings with direct impact on programs.
Regulation	Food Safety Act and appropriate food standards and Good Agricultural Practices (GAPs); training of fishery law enforcers.
Extension	Local farmer technicians provided through local government collaboration; Rice Crop Manager for individual technical prescriptions; training of extension workers.
Credit, Guarantee and Insurance	Sikat Saka for the emerging farmer entrepreneur with own bank credit standing; expanded insurance coverage for farmers listed in the Registry of Basic Sectors in Agriculture.
Agribusiness and Marketing	Trading centers and inter-trade among trading centers. Commodity value chain analysis and the Vulnerability and Suitability Index as tools to guide enterprise development.
Information and Education	Farmer Business School Module; Farmers' Field Schools with season-long courses.
LGU engagement	Implementation Management Agreement to define rules of engagement.
Monitoring	Real-time reporting on progress of subprojects. PRISM and satellite imaging for tracking of damage from calamities and pests.

Part of improving the way of doing agriculture is fine-tuning the functions of the department as defined in the Agriculture and Fishery Modernization Act of 1997 (R.A. 8435). In 2014, the Agriculture and Fishery Modernization Plan was published. Preparing the successor AFMP is due to start in 2016.

In parallel, the DA's various commodity programs went through a review of their road maps while the program secretariats were reorganized based on the approved rationalization plan.

Two major influences bear upon the preparation for the future: climate change and the ASEAN economic integration. Innovations for climate-smart infrastructure and farm systems have been laid out and need to be pursued. Tariff reforms have been in place for most commodities, while orientation and information meetings are being conducted for greater readiness to participate in the ASEAN market.

Much remains to be done and much more have to be improved upon. Reforming by doing agriculture in the past five years is this administration's contribution to that continuing effort.



AGRICULTURE IN THE PHILIPPINE ECONOMY

11.2 Million

Farmers and fishers worked in 2014
to feed 100 million Filipinos

PHP1.4 Trillion

Gross value added in agriculture at current prices

PHP70 Billion

2014 budget for agri-fishery or PHP700 per Filipino to assist
the sector to feed the population

6x

The DA budget for four years (2011-2014)
of PHP223.6 billion was equal to the
PHP1.4 trillion output for 2014 alone

AGRICULTURE IN THE PHILIPPINE ECONOMY

PERFORMANCE OF THE AGRICULTURE SECTOR

The past five years — 2010-2014 — have been challenging for the agriculture and fisheries sector. The pernicious effects of climate change, primarily flooding and drought, caused billions worth of livelihood and production losses to the sector. Typhoon Yolanda alone decimated the stock of coconut trees in the Eastern Visayas and destroyed the boats of fishermen. Despite these, the sector

managed to maintain its upward trend as output grew by 8.32 percent from PHP662.67 billion in 2010 to PHP717.82 billion in 2014 for an average annual growth of 2.08 percent (Table 1).

Agriculture contributed 10.02 percent of the gross domestic product in 2014 while contributing 40.26 percent in the manufacturing sector. It provided income to 11.21 million workers or 30.05 percent of the total labor force (Table 1).

Table 1. Agri-Fishery sector's contribution to the national economy

Particulars	2010	2013	2014
GDP at constant 2000 prices (in million PHP) ¹	5,701,538	6,750,079	7,164,017
Agriculture	662,665	706,585	717,824
Industry	1,859,516	2,219,125	2,394,693
Services	3,179,359	3,824,369	4,051,499
Share in GDP (%)			
Agriculture	11.62	10.47	10.02
Industry	32.61	32.88	33.43
Services	55.76	56.66	56.55
Share of Agri in the Manufacturing (in %) ²	42.35	40.16	40.26
Number of employed persons in agri-fishery ('000 persons) ³	11,213	11,028	11,212
Share of employed persons in agriculture (in %)	32.62	30.39	30.05

Source: Philippine Statistics Authority, 2015

Notes:

1. Data on GDP for 2014 are based on updated data as of 28 May 2015.
2. Share of agri in manufacturing is based on constant 2000 prices and includes food, beverage and tobacco industries.
3. Employed persons exclude Region VIII or Eastern Visayas of which 807 thousand (44.1 percent) were employed in agriculture out of its total labor force of 1.83 million in 2013 (PSA).

This tramline system in Don Salvador Benedicto, Negros Occidental helps farmers by reducing hauling time from 3-5 hours to 10 minutes. A total of 126 tramlines have already been installed in different parts of the country from 46 tramlines in 2010.



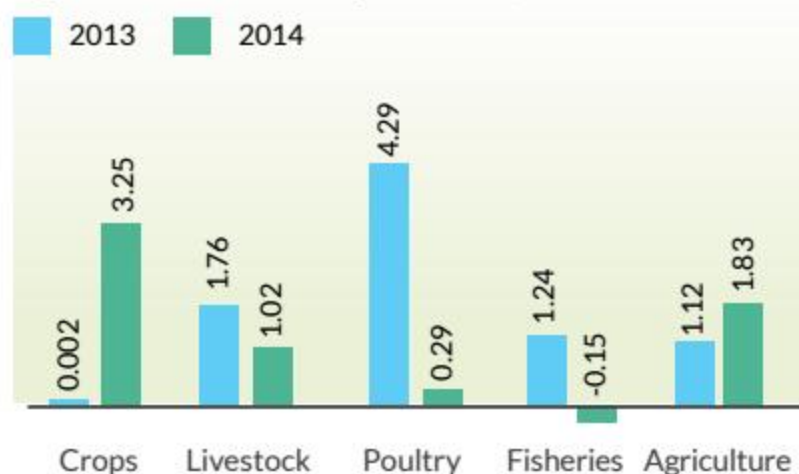
Agricultural production expanded by 1.83 percent in 2014. Increases in the output of crops that grew by 3.25 percent, livestock by 1.02 percent, and poultry by 0.27 percent contributed to the sector's growth. Fisheries slightly declined by 0.15 percent. At current prices, gross earnings amounted to PHP1.61 trillion, which is 9.71 percent higher than 2013 (Figure 1).

The **crops** subsector retained its major share of 51.71 percent of total agricultural production. Fisheries followed at 17.65 percent, then livestock at 16.10 percent, and poultry at 14.54 percent (Figure 2).

On the average, **farmgate prices** went up by 7.74 percent compared to 2013. Significant price increases were recorded in the crops subsector at 10.92 percent. The poultry subsector followed with an average price gain of 7.55 percent. In the livestock subsector, prices were quoted 4.54 percent more this year. Meanwhile, the fisheries subsector posted an average price contraction of 0.88 percent (Figure 3).

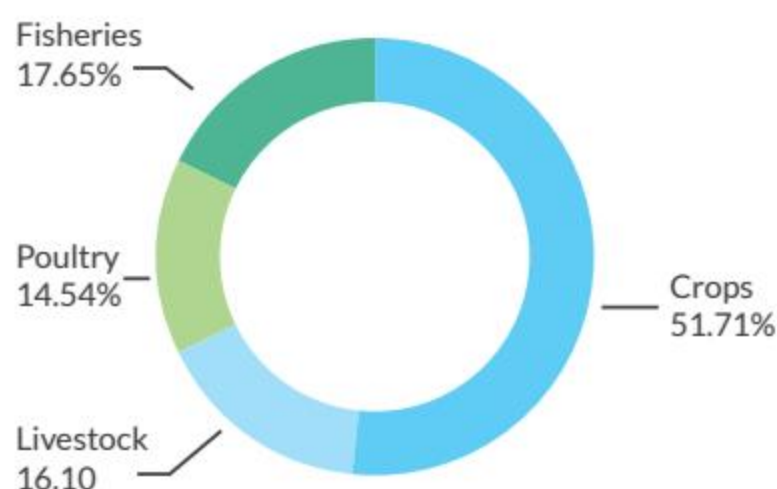
In 2014, the inflation rate for all items rose to 4.19 percent from 2.96 percent in 2013. Reflecting increases in the price of agricultural commodities at the farmgate, the food inflation rate rose to 7.03 percent in 2014 from 2.87 percent in 2013.

Figure 1. Growth rates by subsector, 2013-2014.



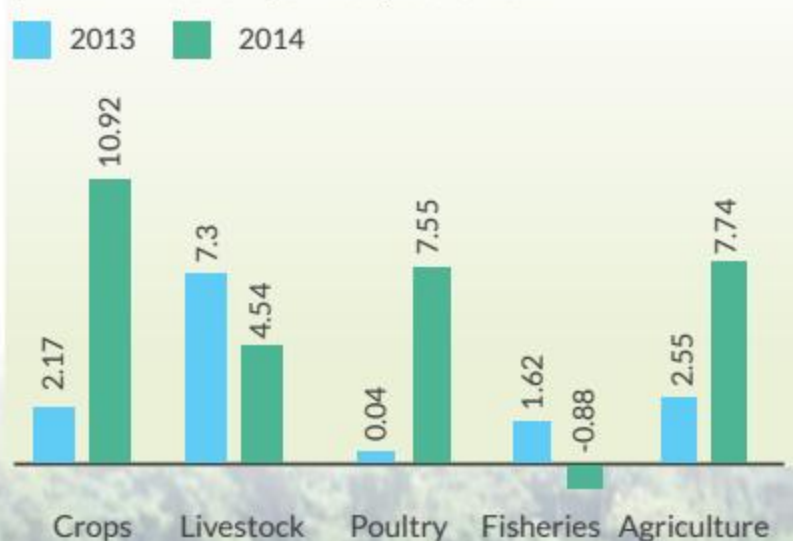
Source: Philippine Statistics Authority

Figure 2. Shares of subsectors in agriculture, 2014.



Source: Philippine Statistics Authority

Figure 3. Weighted average farmgate price increases by sector, 2013-2014.



Source: Philippine Statistics Authority, 2014

AGRICULTURE IN THE PHILIPPINE ECONOMY

Top Contributors to Agricultural Performance

Eight commodities account for almost 80 percent of the PHP717.82 billion gross value added (GVA) in agriculture (Table 2). These include palay, fishing, livestock, poultry, corn, banana, coconut (including copra), and mango (which replaced pineapple in last year's list).

Commodities with Highest Growth Rate

Table 3 lists the commodities that recorded the highest rates of increase in 2014. Onion, tobacco, mango, yellowfin tuna and cassava were in the 2013 list while skipjack, corn, sugarcane, tomato and palay are new entrants.

Table 2. Eight commodities that make up 80% of total agricultural output, 2014.

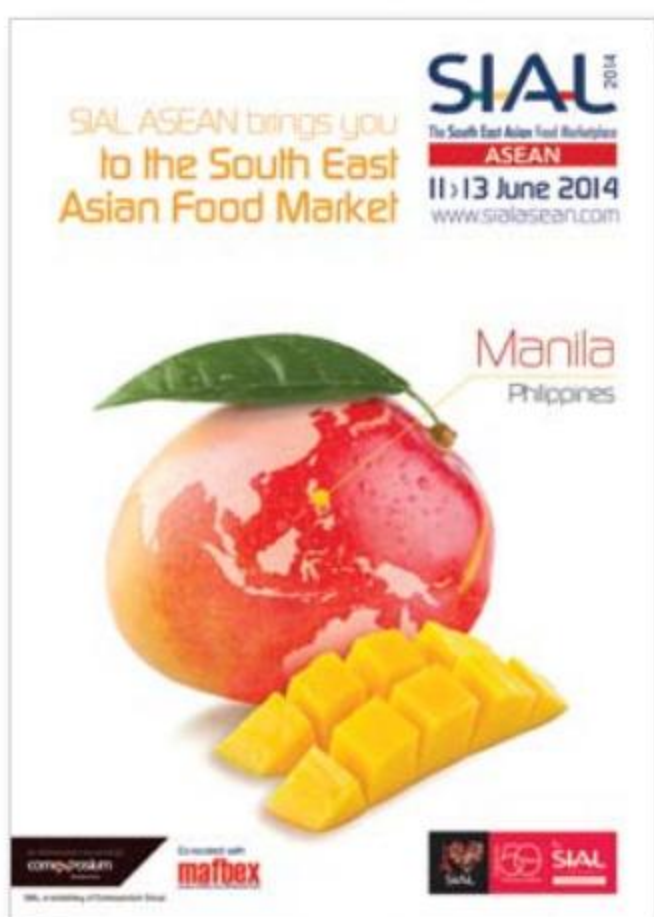
Commodity	GVA in million pesos (at constant prices)	% Share
1. Palay	147,921	20.61
2. Fisheriesa	130,495	18.18
3. Livestock	95,885	13.36
4. Poultry	77,930	10.86
5. Corn	42,162	5.87
6. Banana	32,501	4.53
7. Coconut (including copra)	27,987	3.90
8. Mango	16,179	2.25
TOTAL	587,146	79.55

Source: Philippine Statistics Authority, 2014

Table 3. Top ten commodities that recorded highest production growth, 2014.

Commodity	Volume (in '000 MT)		Growth Rate, %
	2013	2014	
1. Onion	134.24	203.66	51.71
2. Tobacco	53.75	61.42	14.27
3. Skipjack	212.22	241.60	13.84
4. Mango	816.38	885.22	8.43
5. Yellowfin tuna	130.15	140.79	8.18
6. Cassava	2,361.56	2,537.01	7.43
7. Corn	7,377.31	7,770.61	5.33
8. Sugarcane	24,584.85	25,612.21	4.18
9. Tomato	207.67	214.58	3.33
10. Palay	18,439.42	18,967.83	2.87

Source: Philippine Statistics Authority, Performance of Philippine Agriculture, January-December 2014



In 2014, Manila hosted the debut in Southeast Asia of the world's biggest food exhibition, the Salon International de l'Agroalimentaire (SIAL), a French international food show. The event was participated in by 104 countries.

AGRICULTURAL TRADE: TOP EXPORTS

Agricultural exports increased by 5.78 percent from USD6,400 million in 2013 to USD6,770 million in 2014 (Table 4). The top 10 earners contributed 67.8 percent. Agricultural exports accounted for 11.0 percent of total exports of the country.

Coconut-based products, including coconut oil, desiccated coconut, and copra oil cake, led in growth rate at 33.83, 32.22 and 43.77 percent, respectively, despite the decline in domestic production of the commodity. Fresh bananas retained its spot as the second top export, growing further by 18.06 percent. Like coconut, seaweeds and carrageenan also exhibited sustained growth despite a decline in production.

In contrast, the export of tuna, unmanufactured tobacco, and centrifugal sugar declined and collectively pulled down overall export performance figures in 2014.

Table 4. Agricultural exports, FOB value in million USD, Jan.-Dec. 2012-2014.

Commodity	Jan.-Dec. 2012	Jan.-Dec. 2013	Jan.-Dec. 2014	Growth Rate, %	
				2012-2013	2013-2014
1. Coconut Oil	1,041.48	1,005.58	1,345.77	-3.45	33.83
2. Fresh Bananas	646.66	962.58	1,136.42	48.85	18.06
3. Tuna	455.1	681.62	459.83	49.77	-32.54
4. Pineapple & products	414.91	425.44	436.14	2.54	2.52
5. Tobacco Manufactured	157.46	248.02	322.96	57.51	30.22
6. Dessicated Coconut	197	198.67	262.69	0.85	32.22
7. Seaweeds & Carageenan	184.15	218.58	262.55	18.70	20.12
8. Copra oil Cake	124.61	92.34	132.76	-25.90	43.77
9. Tobacco Unmanufactured	76.32	272.88	126.35	257.55	-53.70
10. Centrifugal Sugar	108.8	211.26	107.14	94.17	-49.29
Total, Top Ten	3,406.49	4,316.97	4,592.61	26.73	6.39
Others	1,631.46	2,083.07	2,177.05	27.68	4.51
TOTAL	5,037.95	6,400.04	6,769.66	27.04	5.78

Source: Philippine Statistics Authority, Updates on Agricultural Trade Performance, Jan.-Dec. 2014

AGRICULTURE IN THE PHILIPPINE ECONOMY



FARMER'S INCOME

Foremost to every program of the DA is the goal of increasing the income of farmers and fishers. Improving productivity, reducing costs, and giving farmers a favorable farmgate price are three areas that government interventions seek to address. Section 2 details the accomplishments of the DA programs.

Majority of commodities whose survey on costs and returns of production is available, significant increases in nominal net income were experienced by farmers during this administration. These increases can be traced mainly to improvements in yield and better farmgate prices, while the rest may be attributed to reduced production costs and post-harvest losses.

Table 5. Comparison of average increase in net income per hectare of crop farmers before and during Aquino administration, in nominal terms, 1996-2013.

Commodity	Net Income ¹ (PHP per hectare)			Average increase in Net income per Year (PHP)		Difference
	Baseline ²	2010	2013 ³	Baseline-2010	2010-2013	
Onion Bulb	124,176	131,438	292,088	1,816	80,325	78,510
Pineapple	226,981	126,745	210,578	-8,353	27,944	36,297
Carrots	160,164	120,932	198,676	-2,802	25,915	28,717
Cabbage	49,663	24,662	103,395	-1,786	26,244	28,030
Cauliflower	91,778	104,287	175,802	894	23,838	22,945
Eggplant	19,569	10,245	49,431	-777	13,062	13,839
Habitchuelas	18,462	5,880	44,689	-899	12,936	13,835
Ampalaya	4,818	40,127	79,361	2,942	13,078	10,136
Tomato	56,750	61,692	90,501	412	9,603	9,191
Durian	106,306	42,749	56,081	-4,540	4,444	8,984
Cassava	22,965	36,822	51,857	1,155	7,518	6,363
Potato	92,045	239,272	280,479	10,516	13,736	3,219
Pili	22,735	66,829	85,176	3,150	6,116	2,966
Sweet Potato	11,989	25,945	33,950	1,074	4,003	2,929
Corn	2,739	5,760	9,537	378	1,259	881
Palay	6,126	15,830	21,910	1,213	2,027	814
Cashew	1,640	6,663	8,582	359	640	281
Peanut	18,378	24,360	30,065	1,740	1,902	162

Source: Philippine Statistics Authority

Notes:

1. All items are on annual basis except for rice and corn, which are on per crop basis.
2. Baseline year for carrots, cabbage, cauliflower, habitchuelas, durian, potato, pili, and cashew is 1996; for sweet potato and peanut is 1997; pineapple, eggplant, papaya, ampalaya, tomato, and cassava is 1998; for palay and corn is 2002; and for onion bulb is 2006.
3. Latest available data for all items are from 2013 except for onion bulb, cassava and sweet potato which are from 2012.

While not reflected above, one intervention of the DA that reduced the cost of production and improved yield is the distribution of rice combine harvesters on a counterpart scheme. This machine, which was initially shunned by farm workers due to its tendency to displace farm labor, gained popularity when it was demonstrated to effectively reduce harvest time from 2 days to 4-5 hours per hectare, wastage from 10 to 2.5 percent, and labor cost from 14 to 8 percent of harvest. At the same time, displaced workers were organized into farm service providers and were given employee privileges such as membership in SSS and enrollment in PhilHealth.

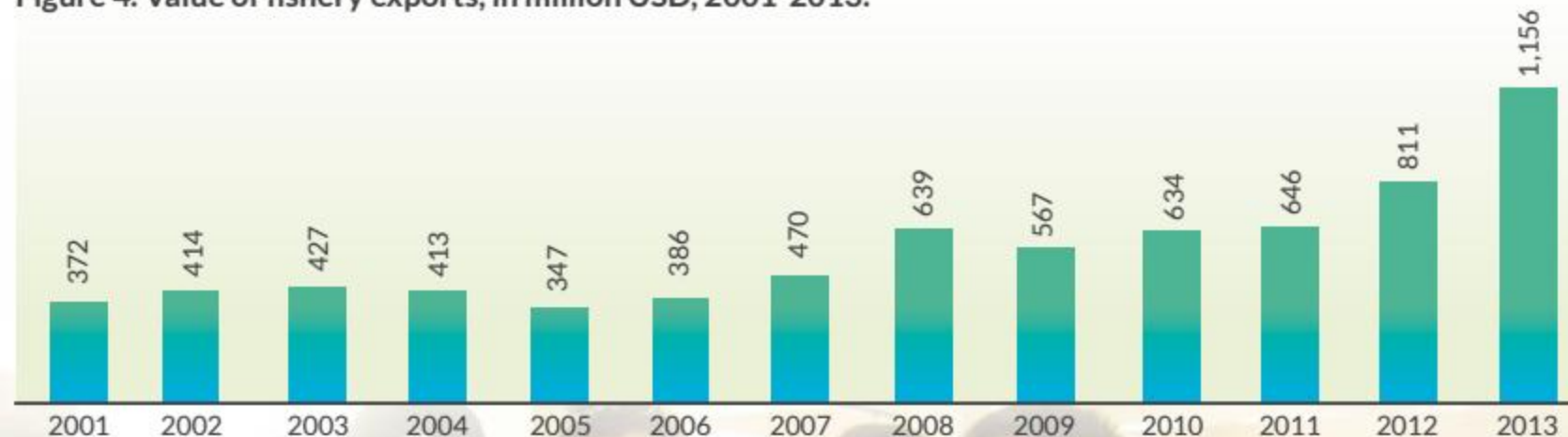
In addition to farm income, farmers, fishers and rural workers also benefitted from post-harvest and processing facilities provided by the DA. The four KOICA-funded rice processing complexes offered farmers reasonable farmgate price for their produce, the onion hangers allowed farmers to store their produce until they got a good price, the small-scale irrigation systems constructed for rice farms provided aquaculture livelihood to households, the Sentrong Pamilihan in Quezon served as a venue for farmers to bring their produce and sell them at the best price possible, and the tramline systems installed in mountainous areas reduced transport time and

preserved the freshness and value of vegetables and other products. These are just some of the interventions that improved the income of farmers.

In Mindanao, the implementation of the Mindanao Rural Development Program resulted in an increase of 36.36 percent in the annual household income of project-beneficiaries from PHP75,360 in 2007 (when the program officially started but had a slow takeoff addressed in 2011) to PHP102,759 in 2014 through the delivery of agri-fishery related support services and infrastructure.

For fisheries, the value of exports consistently rose from USD634 million (PHP28.59 billion) in 2010 to USD1.16 billion (PHP49.08 billion) in 2013, with the biggest increase of 42.56 percent taking place from 2012 to 2013. The extension of fishing access in the tuna-rich High Seas Pocket 1 of the Pacific Ocean and the provision of fish aggregating devices helped to increase the catch of certain species. Also, what was once thought to be a pest in rice paddies and fish dikes, the live yellow eel or *kiwet*, became an alternative export product to eel fry and elvers that earned USD91 million from 2012-2014, – much higher compared to USD4.3 million in 2011.

Figure 4. Value of fishery exports, in million USD, 2001-2013.



Source: Philippine Statistics Authority, 2014

Tuna retains its top three spot in agricultural exports.

19MMT

Palay production - highest in history, world's fastest-growing rice producer in 2014



188

New fishery law enforcers from only four in 2010



3,014Km

Total farm-to-market roads constructed and/or rehabilitated

6

Trading posts in operation
17 in progress



7.8MMT

Corn production reflecting
5.3% increase over the
previous year



2.4MMT

Cassava production
reflecting 6.3% increase
over the previous year



87,975

Organic agriculture
practitioners



84K ha

Agricultural lands
devoted to organic
farming



PHP2.6B

Loans released to
51,605 small
farmers & fishers
in 2014

PROGRAM PERFORMANCE

The Department of Agriculture, as the primary agency responsible for the country's agricultural development, offers a wide range of services – from production and credit to research and development and extension and programs – that cater to almost all commodities produced by the sector.

PROGRAM PERFORMANCE

NATIONAL RICE PROGRAM

The year 2014 was another milestone for the DA as the Philippines sustained the upward trend in its palay production, reaching 19.0 million metric tons or 99.5 percent of the target. With a 2.9 percent production growth, it exceeded the previous year's record by more than 0.5 million metric tons.²

The increase was driven mainly by the strong growth in production of irrigated farms: the physical area

²Net production increase is the difference between the increase in production in irrigated areas and the decline in production in rain-fed areas (582,566.72 MT less 54,160 MT = 582,406 MT)

expanded by almost 12,000 hectares, yield improved by 160 kg per hectare, and production increased by almost 0.6 million metric tons.

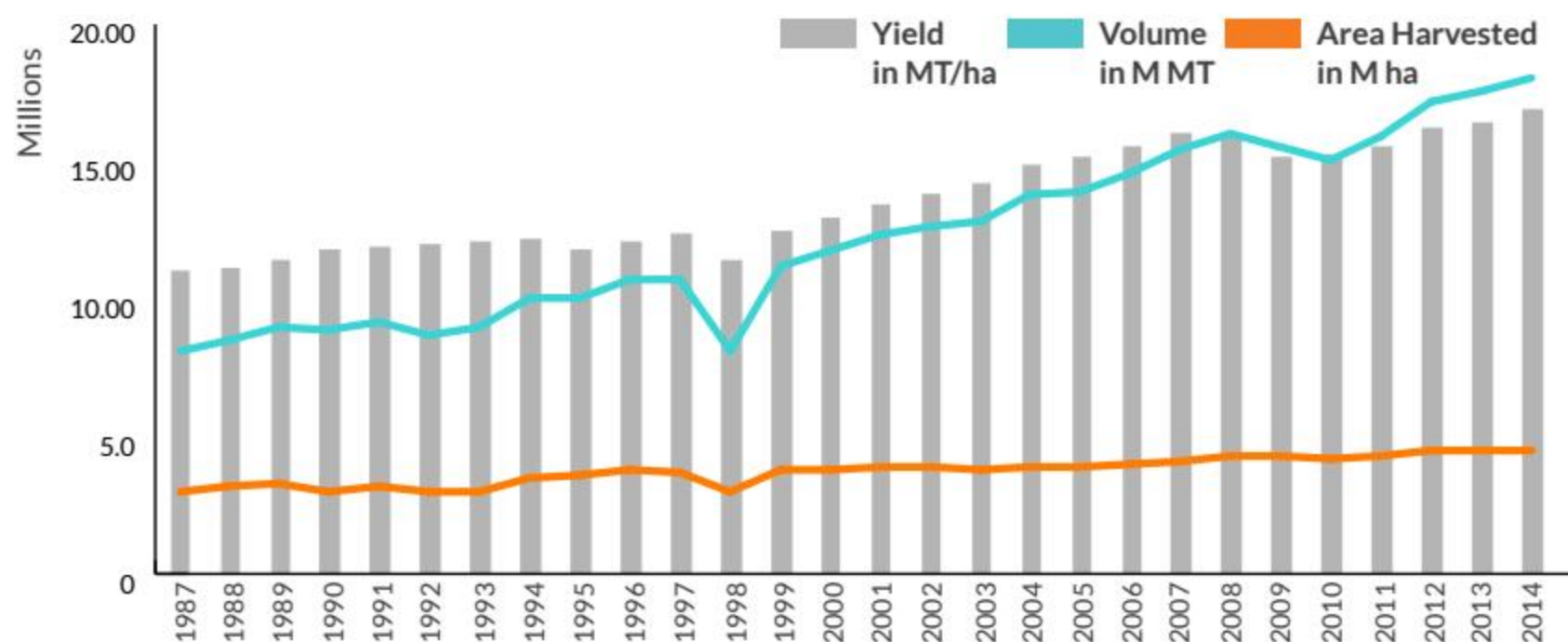
In contrast, rain-fed production decreased by 54,160 metric tons as the physical area contracted from 1.05 million hectares in 2013 to 1.02 million hectares in 2014. This arose from two factors: 1) irrigation programs succeeded in converting rain-fed areas into irrigated lands; and 2) rain-fed areas were affected by the shortage of water supply experienced in the later part of the year.

Table 6. Contribution of area harvested and yield to production increases of palay, 2013-2014.

Ecosystem/Source Of Increase	Area in ha	Yield in MT/ha	Production in MT	% Contribution to Production Increase	
				By Ecosystem	Total
Irrigated Ecosystem			582,567	100.00	110.25
Due to Expansion in Area	16,742	4.35	72,826	12.50	13.78
Due to Yield Improvement	3,244,709	0.16	509,741	87.50	96.47
Rainfed Ecosystem			-54,160	100.00	-10.25
Due to Expansion in Area	-23,162	3.06	-70,949	131.00	-13.43
Due to Yield Improvement	1,498,173	0.01	16,789	-31.00	3.18
All Ecosystems			528,406	100.00	100.00
Due to Expansion in Area	-6,419	3.94	-25,314	-4.79	-4.79
Due to Yield Improvement	4,742,882	0.12	553,721	104.79	104.79



Figure 5. Rice production over the years, 1987-2014.



Source: Philippine Statistics Authority

Table 7. Performance of Rice Program compared to production targets, national level, 2014.

Particulars	Target	Accomplishment	% Accomplished
Production, MT	19,070,249	18,967,826	99.46
Area Harvested, ha	4,829,420	4,739,672	98.14
Yield, MT/ha	3.95	4.00	101.27

Source of raw data: Philippine Statistics Authority

PROGRAM PERFORMANCE

During the year, the high prevailing farmgate prices and the implementation of the High-Yield Technology Adoption (HYTA) project resulted in the increased use of high quality certified and hybrid seeds. The area cultivated to high-yielding seed varieties such as hybrid and inbred rice certified seeds grew by 13.5 percent and 3.5 percent, respectively. Assuming production cost constant in 2013 and 2014, the income of farmers concerned increased by as much as PHP14,000 per hectare per cropping in 2014 due to the favorable price and improvement in yield.

Production Support Services

In 2014, the Rice Program implemented the HYTA project in fully irrigated rice farms to ensure attainment of high yield and avoid crop failure due to moisture stress. Hybrid and inbred rice certified seeds were provided to farmers under a "Grant-Recovery-Rollover" scheme with institutional partners.

To ensure the production and availability of seeds of high yielding varieties, training activities for new seed growers were conducted in areas lacking local seed growers.

In the areas planted for the production of registered seeds, a total of 35,185 20-kg bags were produced and distributed to seed growers all over the country to ensure availability of certified seeds. Seeds of upland varieties good for 2,022 hectares were also distributed. In addition, production of seed varieties for climate change adaptation and mitigation were continued for distribution and for buffer stocking as part of DA's adaptability measures. As a measure of disaster preparedness, 133,815 bags of buffer seed stocks were positioned for distribution in case calamity strikes.

A total of 14 agro-meteorological stations were also established in vulnerable areas. Further, 81,517 farmers were provided with weather-based insurance coverage.

In support of the community seed banks, seven seed storage facilities were rehabilitated; 328 units of simple seed processing equipment and 33,258 2-kg bags of locally-adapted starter seeds were also distributed.

For soil analysis and mapping, 2,505 soil testing kits were distributed, 17,707 soil composite samples were collected and analyzed, and nine soil laboratories were maintained.

The National Rice Program also facilitated activities that led to a significant increase in palay production. These included the designation of almost 90,000 hectares for early planting, some 10,000 hectares for third cropping, and almost 20,000 hectares for ratooning.

Irrigation Development Services

Provision of irrigation water is most essential for farmers to be able to realize the potential of yield-enhancing technologies and modern farming practices. The provision of small-scale irrigation facilities in cluster areas was pursued to ensure that major waterways are functional and to achieve higher irrigation efficiency. Table 7 show the targets and accomplishments of small-scale irrigation projects in 2014.



The Cateel Irrigation Project in Brgy. Aragon, Cateel, Davao Oriental serves 1,600 hectares of rice farms in 11 barangays of Cateel. Built at the cost of P284 million, this is the biggest irrigation project under the Mindanao Rural Development Project.

Table 8. Target and accomplishments of small-scale irrigation projects, 2014.

Type of SSIP	Target		Accomplishment	
	No. of Projects	Service Area, ha	No. of Projects	Service Area, ha
Small Water Impounding Project	43	3,984	7	320
Diversion Dam	136	5,500	22	695
Small Farm Reservoir	426	376	96	96
Spring Development	12	249	10	179
Canal Lining	54	2,336	25	1,063
Pump Irrigation Project/Ram Pump/ Solar Pump	1	50	0	0
Pump & Engine Sets for Shallow Tube Wells/ Pump Irrigation System from Open Source	560	1,680	0	660
TOTAL	1,232	14,175	160	3,013

Agricultural Equipment and Facilities Support Services

During the year, 110 multi-purpose drying pavements, 95 palay sheds, and 20 warehouses were constructed, and more than 800 collapsible dryer cases were distributed to reduce postharvest losses and improve the quality of palay. In addition, more than 100,000 pieces of laminated sacks were distributed so that farmers could immediately cover their palay when rains suddenly occur during sun drying operations.

To help farmers' organizations and irrigators' associations boost efficiency of their farming operations, they were provided equipment on a 85:15 counterpart scheme. These included 535 hand tractors, 133 four-wheel drive tractors, 739 power knapsack sprayers, 27 combine harvesters, and 201 mechanical threshers.

Extension Support, Education, and Training Services

Training sessions on existing and new rice technologies were continually conducted to improve farm management. Agricultural extension workers (AEWs) and program implementers were updated on the latest technologies. They were also trained on the use of information and communication technologies to facilitate their access to new information.

Similarly, some 6,465 agricultural technicians, 1,243 municipal agriculturists, 391 provincial rice program

coordinators, and 94 provincial agriculturists benefitted from logistics support to local government units (LGUs).

Farmers were trained by the Agricultural Training Institute (ATI) and the Philippine Rice Research Institute (PhilRice) on the latest best practices in farm management. They learned how to adopt diversified and integrated farming systems to enhance their productivity and income.

Farmer achievers in a barangay or municipality were tapped to be local farmer technicians. They complemented the AEWs' activities in the field. They shared their good farming practices combined with the technical knowledge acquired from ATI and PhilRice with their fellow farmers.

To improve farming practices, 962 farmers' field schools, 26 technical exposures and cross visits, 21 trainings on enhancing farm mechanization, and 1,542 technology demonstrations were conducted.

This was supported by a sustained campaign that included: distributing information advocacy and promotional materials; putting up billboards, streamers, and tarpaulins; airing radio and TV plugs and interviews; holding school on the air and radio farm programs; and conducting agricultural information caravans.

PROGRAM PERFORMANCE

Research and Development

Research and Development is a vital component of the National Rice Program in the face of the many challenges it faces that include natural calamities especially those arising from climate change and trade related issues. The DA continued to undertake studies in this regard.

Protecting Rice Farmers - A study entitled "Comparative Analysis of the Domestic Performance among Provincial/Regional Rice Production Systems in the Philippines: Implications on Global Competitiveness under Import Substitution Trade Regime" was commissioned by the DA to provide a basis for development of appropriate interventions. The study made a comprehensive qualitative and quantitative assessment of the domestic performance in terms of productivity, profitability, cost efficiency and attainment of food security among provincial/regional rice production systems in the Philippines. The study also assessed the tariff levels needed to protect domestic rice farmers under an import substitution trade regime.

Assessing the FSSP - Initiated in 2014 and completed in 2015, the Midterm Assessment of the Food Staples Sufficiency Program covering the period from 2011 to 2013 was the first independent evaluation of the government rice program. The study was funded by the Food and Agriculture Organization and the World Bank.

Developing Rice Varieties - The development of stress resistant rice varieties continued throughout the last five years. From 2010-2014, 90 new rice varieties have been released by the National Seed Industry Council (NSIC). Prior to release, promising lines are tested nationwide in comparison with prevalent commercial varieties as check varieties. Its yield performance, pest and disease resistance, and grain quality are assessed in the National Cooperative Test (NCT). New varieties are authorized for release upon the approval of the NSIC following the recommendation of the Rice Technical Working group who evaluated the results of the NCT.

IRRI Projects - Seven projects in collaboration with the International Rice Research Institute (IRRI) are ongoing:

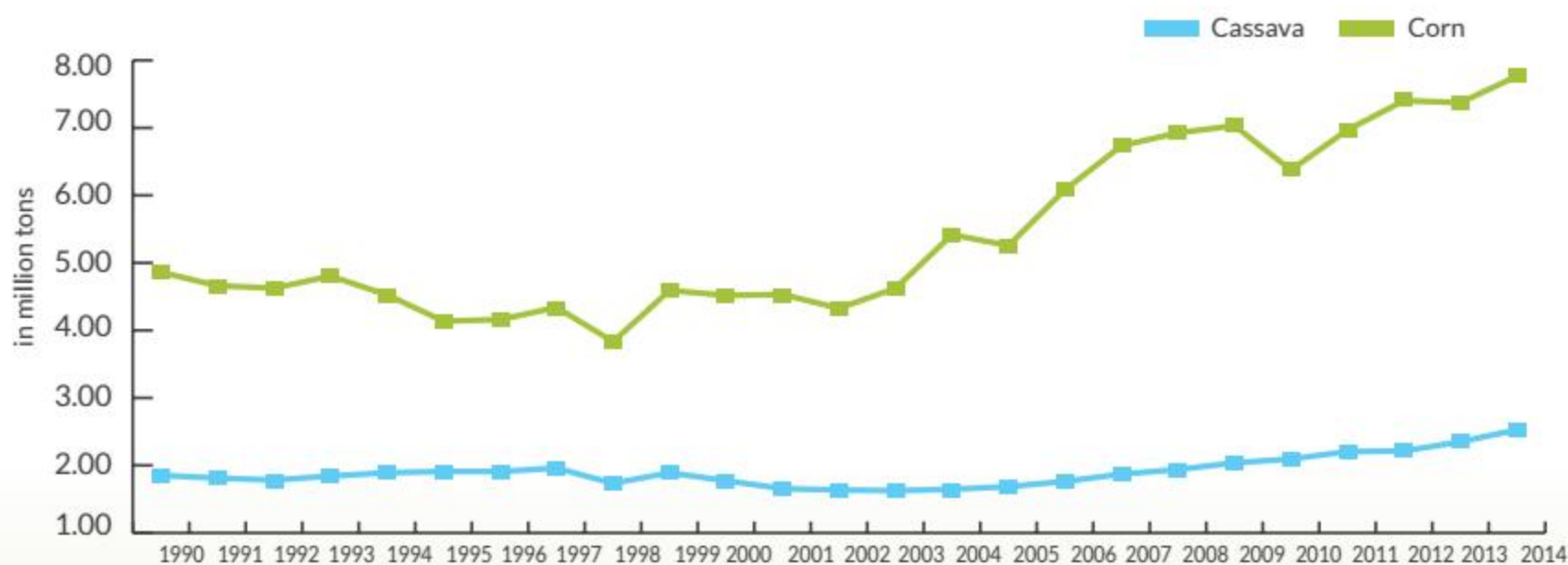
- (1) **The Heirloom Rice Project.** This collaborative project aims to enhance the productivity and enrich the legacy of heirloom or traditional rice through empowered communities in unfavorable rice-based ecosystems. It holds the promise of becoming a remarkable endeavor for culturally rich communities in isolated regions of the world, particularly the hinterlands of Asia, Latin America, and Africa.
- (2) **NextGen.** This project aims to use recent advances in plant breeding, such as the use of molecular biology, stratified multi-environmental testing (MET), and improved computational power to make the country's rice breeding program more efficient.
- (3) **Improving Technology Promotion and Delivery (IPad).** The project aims to enhance the capacities of the next generation of rice extension professionals and other strategic groups of extension intermediaries, which could contribute to efforts to invigorate the rice extension system and thus help attain and sustain rice sufficiency and food security.
- (4) **Cross-country research.** This project involves the benchmarking of the Philippine rice industry relative to five major rice-producing countries in Asia (China, India, Indonesia, Thailand and Vietnam). It aims to examine and compare the following aspects of each country: government policies affecting competitiveness in rice production and marketing; rice yield, input use, and marketing practices; costs of producing and marketing commercial rice; cost of producing hybrid seeds (especially compared with China and India); and the comparative and competitive advantages of the Philippines in producing commercial and hybrid rice seeds.
- (5) **Rice Crop Manager (RCM).** RCM aims to make available to farmers timely and regular farming advice through an information and communication technology (ICT)-based decision support tool, which provides location-specific crop management advice. In the long run, RCM will become a rice agro-advisory service that will help widen and strengthen the reach of extension efforts.
- (6) **Philippine Rice Information System (PRISM).** This project aims to collect and deliver rice crop information in the country using data from satellites, crop models, smartphone-based surveys, statistics, and maps, so as to deliver actionable information on rice crop seasonality, area, yield and yield-reducing factors.
- (7) **Associated Technologies.** This project aims to disseminate site-specific rice farming technologies that have been tested in field conditions as options for farmers so that they can improve their productivity and income.

NATIONAL CORN PROGRAM

Recognizing the significant role of corn and cassava as alternative food staples and primary ingredient to feeds for livestock and poultry subsectors, the DA continued to implement the National Corn Program. While referred to as Corn Program, the program also provides assistance to cassava farmers. The interventions delivered have contributed to achieving historical high production of these commodities.

In 2014, corn production reached 7.77 million metric tons, higher by 5.28 percent from 7.38 million metric tons in 2013 (Figure 6). This represents 92.9 percent of the targeted 8.37 million metric tons (see Table 9). On the other hand, cassava production continued its steady upward trend and grew by 6.22 percent from 2.22 million metric tons in 2013 to 2.36 million metric tons in 2014. In general, the increases were attributed to sustained use of high-yielding varieties and recovery from effects of typhoon for corn while the use of high yielding varieties and sustained demand helped increase cassava production.

Figure 6. Cassava and corn production, in million metric tons, 1990-2014.



Source: Philippine Statistics Authority, 2014



The country achieved the highest ever corn production in its history at 7.77 million metric tons in 2014

PROGRAM PERFORMANCE

Table 9. Performance of Corn Program compared to production targets, 2014.

Particulars	Target	Accomplishment	% Accomplished
All Corn			
Production	8,366,997	7,770,603	92.9
Area Harvested	2,598,504	2,611,432	100.5
Yield	3.22	2.98	92.4
White Corn			
Production	2,537,094	2,262,234	89.2
Area Harvested	1,308,227	1,290,213	98.6
Yield	1.94	1.75	90.4
Yellow Corn			
Production	5,829,903	5,508,369	94.5
Area Harvested	1,290,277	1,321,219	102.4
Yield	4.52	4.17	92.3

Source: Corn Program, PSA

In line with the FSSP's intention to diversify consumption of food staples, information and advocacy campaign were undertaken. This resulted in the increased per capita consumption of corn from 7.07 kg per year in 2008-2009 to 10.26 kg per year in 2012.³ On the other hand, cassava per capita consumption decreased from 3.12 kg per year in 2008-2009 to 2.83 kg per year in 2012.

The interventions provided to the farmers are the following:

- In 2014, the National Corn Program provided 378,376 kilograms of quality registered/certified Open-Pollinated Variety (OPV) corn seeds to 21,414 farmers. In addition, 5,342,213 pieces of high yielding varieties of cassava planting materials were distributed to 1,057 farmers in support to contract growing arrangement between farmers and processors/end-users. The Program maintained 32 biocontrol agent laboratories and distributed 14,154,135 biocontrol agents.
- Under irrigation, 314 shallow tube wells were installed to enable planting of corn after palay.

- The Program also distributed postharvest equipment and machinery to farmer-groups and constructed postharvest facilities aimed at reducing postharvest losses to increase supply. Tractors and corn planters were likewise provided. Table 10 shows the accomplishment under this intervention.

³PSA. 2012. Survey on Food Demand. <https://www.bas.gov.ph>



The compact corn mill designed by PhilMech and built by local fabricators can be easily transported and has a recovery rate of 72 percent.

Table 10. Equipment and facilities support services delivered under National Corn and Cassava Program, 2014.

Particulars	Target	Accomplishment	% Accomplished
Postharvest equipment and machinery			
Cassava chippers	24	15	62.5
Cassava granulators	159	145	91.2
Hauling vehicle	9	1	11.1
Mechanical corn sheller	127	100	78.7
Corn mill	136	89	65.4
Hermetic cocoons	29	6	20.7
Cassava grater	165	95	57.6
Cassava pulverizer	26	17	65.4
Hammer mill	66	57	86.4
Moisture meter	26	13	50.0
Vacuum pack sealer	87	59	67.8
Cassava dryer	30	4	13.3
Postharvest facilities			
Village type dryer	36	6	16.7
Silos	8	1	12.5
Farm-production related machinery and equipment			
Tractors	184	150	81.5
Corn planters	35	23	65.7

As of this report, the interventions that were not accomplished within 2014 have been carried over into 2015 and are currently ongoing procurement and delivery to beneficiaries.

- For extension services, a total of 45,649 cassava and corn farmers were trained under the Farmer Education Program, which consists of Corn Specialist Training Courses (CSTs) through University of Southern Mindanao, Training of Trainers' (TOTs) Courses for LGU-based extension personnel (including curriculum development) through Agricultural Training Institute, Corn Cluster/IPM Farmer Field Schools (FFSs), Entrepreneurial Training or Agribusiness Training Courses for cooperatives, Postharvest Technology Promotion, Extension and Training by the

PhilMech and support for the Farmer Scientist Training Program (FSTP), Integrated Pest Management (IPM), and the National Corn Farmers' Organization. Training events conducted included 460 Farmer Field School, 911 other training events, and 11 training of trainors.

- The Program also distributed 105,150 information education communication (IEC) materials, aired radio programs and TV plugs/jingle 652 times, and established 798 techno demo farms using farmers' own farms for accessibility and visibility in the farming communities. A total of 2,520 individuals were given incentives, recognition and awards.



Raising high value crops is a feature of the horticulture component of a joint project between the DA-Caraga Region and the USDA Food for Progress.

HIGH VALUE CROPS DEVELOPMENT PROGRAM

High value crops⁴ comprised 15.7 percent of the total contribution of agriculture to GDP in 2014. It is a major source of exports, two of which – banana and pineapple – are consistently included in the top ten agri-exports. While food staple crops address the macroeconomic issue of food security, it is in high value crops that the best income opportunity for farmers can be realized.

Recognizing this fact, the DA implements the High Value Crops Development Program, one of the banner programs created to help address food security, poverty alleviation, and sustainable growth. Its mission is to promote the production, processing, marketing,

and distribution of high value crops. Strategically, HVCDP helps increase incomes, creates livelihood opportunities, and contributes to national agricultural development.

Through the various interventions of the program, productivity and production of high value crops have improved. Table 11 presents the progress in achieving the targets set for the end of 2016 in the Philippine Development Plan. The country has already exceeded its target productivity for banana and mango while pineapple is already at 97.77 percent. For vegetables, the target for production has also already been exceeded. More needs to be done in the remaining year for coffee, cacao and rubber, which are longer gestating crops.

⁴Includes banana, mango, pineapple, coffee, rubber and other crops from the list of items in the gross value added of the agri-fishery sector

Table 11. Performance of HVCDP compared to Philippine Development Plan targets, 2014.

Crops	Target ¹	Accomplishment ²	% Accomplished
Yield (MT/ha)			
Banana	19.95	20.10	100.75
Mango	4.47	4.71	105.37
Pineapple	41.64	40.71	97.77
Coffee	0.69	0.64	92.75
Cacao	0.54	0.44	81.48
Rubber	2.48	2.13	85.89
Production (MT)			
Vegetables	1,646,383	1,674,660	101.72

Source: NEDA, PSA

Notes:

1. Target is based on the Philippine Development Plan Results matrix.
2. Accomplishment is based on preliminary data from PSA.

Table 12. Performance of HVCDP compared to production support services, 2014.

Particulars	Target	Accomplishment	% Accomplished
Planting materials distributed (pieces)	15,977,608	10,030,001	62.78
Farm production-related machinery and equipment distributed	2,649	2,292	86.52
Postharvest equipment and machinery distributed	19,175	17,697	92.29
Postharvest facilities constructed			
Processing Plants	109	34	31.19
Storage Facilities	7	0	0.00
Production facilities (e.g. clonal garden, greenhouse, nursery, seed storage)			
Established	10,502	8,696	82.80
Maintained	364	314	86.74
Rehabilitated	153	92	60.13
SSIPs constructed (e.g., SWIP, DD, SFR, pumps, drip/sprinkler irrigation)			
No. of projects	216	213	98.61
Service Area, hectares	471.48	455.48	96.61

In addition to the commodities above, the developments in the onion industry are also interesting to note. The highest level of production of 146,108 tons attained in 2007 was not matched until 2013. Then, in 2014, production grew by more than 50 percent to 203,660 tons, the highest ever. Expansion in production areas and provision of better planting materials by the HVCDP helped attain this feat. Interventions for onion farmers included the provision of good seeds and hanging dryers. Other onion production sites were also opened in the Mindoro provinces.

Following are the other highlights of the HVCDP accomplishments in 2014:

- **Production support** – This included the distribution of planting materials and farm machinery and equipment to enhance production of various high value crops. Postharvest machinery, equipment, and facilities were also provided so farmers could engage in value-adding activities. See Table 11 for particulars.

- **Support for the export industry** – The HVCDP developed a total of 38 Philippine National Standard (PNS) for fruits and vegetables from 2010-2014 which serve as basis for the granting of the Philippine Good Agricultural Practices (GAP) certification. Five of these were released in 2014:

- Code of Practice for the Prevention and Reduction of Ochratoxin A Contamination in Cocoa;
- Code of Practice for the Prevention and Reduction of Ochratoxin A (OTA) Contamination in Philippine Tablea;
- Principles, Guidelines and Procedures for the Establishment of a Traceability System for Philippine Cacao Beans;
- Code of Hygienic Practice for Melons; and
- Food Defense Guidance for Industry.

The HVCDP also conducted capability building to help farmers acquire GAP certification which is a basic requirement to engage in export activities.

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- **Revitalizing the coffee industry** – The past four years have seen an expansion in the area planted to coffee. A total of 59,842 hectares has been planted to coffee from 2011-2014 under HVCDP's coffee expansion program - directly or in collaboration with the Philippine Coconut Authority's intercropping program and Department of Environment and Natural Resources' National Greening Program.

To make excellent planting materials available to farmers on a continuous basis, the DA provided additional land for the establishment of five nursery sites in DA research centers in 2014.

Seven community-based coffee roasting centers were developed and established in strategic locations in partnership with farmers' groups. The project aims to provide additional income to small coffee growers by adding value to raw green coffee beans. The recipients were also provided the following: Roasting, grinding and packaging units; technology support and development; and training for operations, marketing and small business operations were also provided to recipients.

The DA also entered into a public-private partnership with Nestle Philippines, Inc. for the production of Robusta coffee seedlings with a training component for farmers in DA facilities nationwide.

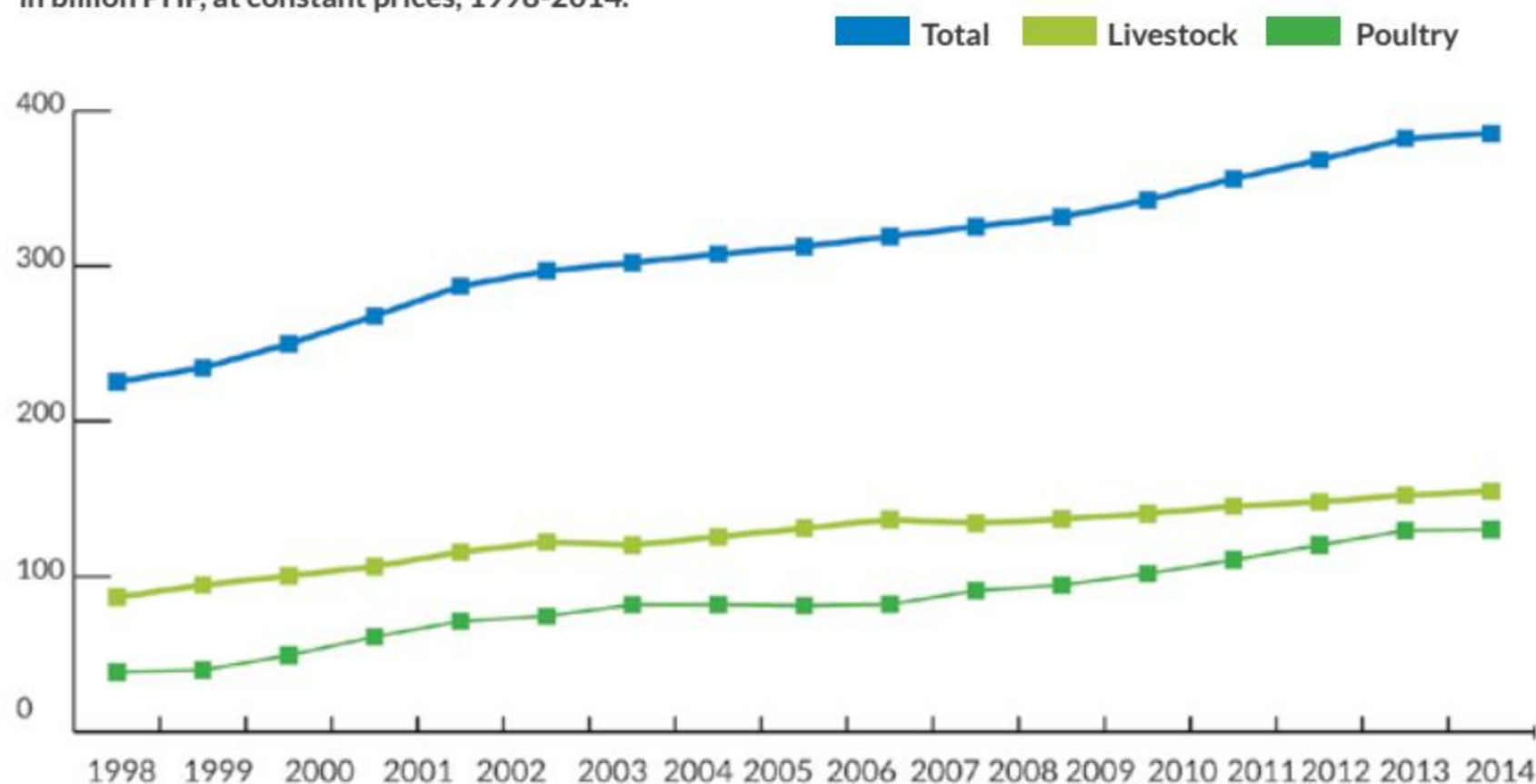
- **Testing facility for rubber** – A Rubber Testing Laboratory was established and operationalized in 2014 in Zamboanga Sibugay, the second top producer of rubber in the country. By learning the quality of their rubber output, the farmers will have a better basis for product pricing.

NATIONAL LIVESTOCK PROGRAM

Livestock contributed 13.36 percent and poultry put up 10.86 percent of the total contribution of agriculture to GDP in 2014. Over the last five years, the two subsectors have posted a steady growth in output. (See Figure 7).

The value of livestock production reached PHP247.12 billion in 2014, up by 5.60 percent from PHP234.00 billion in 2013 as all components in the subsector recorded gains in gross receipts. The uptrend in production and prices pushed up gross output values of carabao by 4.03 percent; cattle, 3.69 percent; hog, 5.82 percent; goat, 7.91 percent; and dairy, 5.93 percent.

Figure 7. Value of livestock and poultry production in billion PHP, at constant prices, 1998-2014.



On the other hand, the value of poultry production amounted to PHP189.70 billion in 2014, rising by 7.84 percent over the previous year as prices improved. Gross earnings from chicken went up by 9.12 percent as a result of increased production and prices. For the same reason, duck posted a 6.49 percent gain in gross earnings. Better prices brought up the gross value of chicken egg production by 3.96 percent. Duck egg increased at the same rate of 3.91 percent due to improvement in both production and price.

The National Livestock Program helped support the strong performance of the two subsectors in 2014 with an array of services. Its accomplishments are presented below.

Production Support Services

Production support involves genetic conservation and improvement and the protection and enhancement of animal health.

Genetic Conservation and Improvement Program —

This involves the use, development and conservation of animal genetic resources (live animals, semen, embryos and DNA materials). Its mission is to improve the production and reproduction potentials of the local herd through the introduction of superior genetics as well as the conservation and improvement of native animals.

Existing nucleus farms/centers for cattle and buffalo were maintained and further strengthened. These are expected to produce genetically-superior animals or improved and better-performing crosses and grades for distribution to LGUs, farmers groups, and other stakeholders under various schemes.

The farms also produced and distributed planting materials for feed to livestock raisers. In 2014, some 2.3 million forage cuttings were distributed – more than double the target of 1.0 million cuttings. They also provided 1,851 kg of seeds to 1,723 farmers.

Also under production support, the Unified Artificial Insemination Program was implemented to upgrade cattle, carabao and dairy animals by providing semen to raisers. In 2014, some 210,000 semen straws were distributed to about 90,000 farmers.

Animal Health Program — Spearheaded by the Bureau of Animal Industry (BAI), the program targets the eradication and control of animal diseases through strategic vaccination, disease surveillance, quarantine and related activities, and information dissemination.

The Philippines reached a milestone in this regard in May 2015 when the World Organization for Animal Health (OIE) recognized the whole country as free of Foot-and-Mouth Disease (FMD). This further opens up export opportunities for pork products to other countries.

The country also remains free of Avian Influenza, allowing the continued export of chicken products to Japan and the opening of other export markets for poultry products.

Other economically important diseases such as Surra, Hemorrhagic Septicemia, and Porcine Respiratory Reproductive Syndrome were also controlled as some 80 provinces were assisted, with more than 42,000 clients served.



Oaig-daya Candon City Goat Raisers Association Inc. members show the goats they received from the Goat Agribusiness Development

PROGRAM PERFORMANCE

To complement direct efforts at control and eradication, BAI upgrades the biological and feed laboratories that it operates in different regions to strengthen its disease diagnostic capabilities.

From 2011-2014, a total of 60 livestock facilities and laboratories were upgraded.

Consultations, workshops, and meetings/dialogues were also held to provide venues and mechanisms for the public and private sector to exchange ideas and craft a framework for interventions as well as to communicate government programs and forge collaborations to address pressing issues.

Market Development Services

The National Livestock Program works closely with the Agribusiness Marketing Assistance Service at the national level and the Agribusiness Marketing Assistance Division at the regional level to ensure that markets are available for the produce of livestock farmers.

Market promotions for market matching or linkages are continuously done through trade fairs, trade missions, investment fora, information campaigns, and exhibits. In 2014, a total of 95 groups and 873 individuals were assisted through market development services.

Databases are also maintained and important developments are regularly reported and discussed with industry players through the Task Force Price and

Volume Watch led by BAI. The task force is now being revitalized in different regions through the Livestock and Poultry Information and Early Warning System (LPI-EWS) Project.

Post-harvest and Other Infrastructure Support Services

Various programs are implemented under this component to reduce losses, add value, and ensure the safety and quality of livestock and livestock products. A continuing project is the establishment of and assistance to Livestock "Okasyon" Markets. In 2014, a total of 70 LOMs in different regions were assisted.

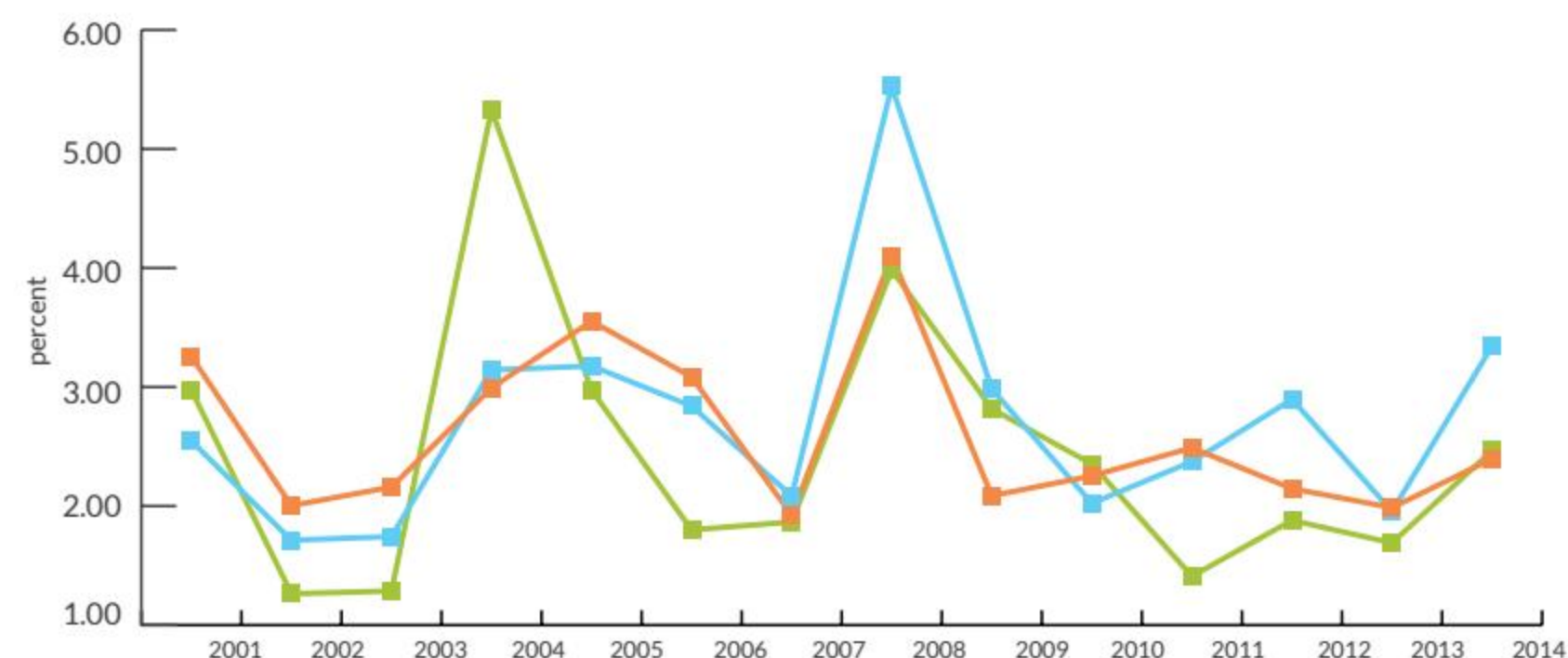
Waste management is another major concern. To address this, BAI established, helped to establish, or rehabilitated about 150 biogas digesters during the year.

Extension Support, Education and Training Services

To improve the performance of the livestock sector, technologies must be promoted for adoption, information must be disseminated, and the capability of the change agents and the client groups must be enhanced.

The Capability Building Program is a key intervention through which farmers, farmers groups, cooperatives, and LGU technicians are trained in all aspects of livestock and poultry production, post production and management. In 2014, a total of 296 training sessions were conducted, educating more than 18,000 extension personnel and farmers.

Figure 8. Inflation rate of meat compared to all items and meat, at constant 2006 prices (rebased), in percent, 2001-2014



Source of raw data: Philippine Statistics Authority



The successful implementation of the "closed season" by BFAR regenerates marine resources

Furthermore, in recognition of the vital role of LGUs in the implementation, monitoring, and reporting of various livestock programs, the DA supplements the salary or provides incentives to LGU technicians. In 2014, some 3,300 Agricultural Extension Workers were provided with incentives.

Impact on Consumers

The National Livestock Program had a beneficial effect on Filipino households in the last five years as the price of meat and poultry remained stable. This was due in part to the effective coordination among industry stakeholders, including producers and processors.

Quarterly supply and demand forecasts for broiler and swine were made and used to guide government interventions, such as special importations. The private sector also used these projections to optimize production and marketing so as to avoid imbalances in supply and demand and the resulting spikes in prices like what occurred in 2004 and 2008.

With this close monitoring as well as the uptrend in production, the inflation rate for meat prices has been lower than the inflation rate of food in general from 2011-2014 and lower than inflation rate of all items from 2011-2013 and only slightly higher in 2014 (Figure 8).

NATIONAL FISHERIES PROGRAM

Fishing is the next most important source of livelihood in agriculture, providing employment to 1.4 million persons or 3.7 percent of total employment in 2013.⁵ In 2014, fishing contributed 18.2 percent to the output of agri-fishery industry and 1.8 percent of the national GDP at constant prices. Despite its significant contribution,

⁵Employment data on 2013 was used due to exclusion of Region VIII in 2014 labor force survey (PSA)

the fishermen were reported the poorest among the basic sectors of the country with 39.2 percent poverty incidence, although this was already a significant improvement from the 41.3 percent recorded in 2009.

In the past four years, the total output of the fisheries sector has been declining. According to the National Statistical Coordination Board, the maximum sustainable yield of 1.7 million tons for marine fishery resources had been reached between 1986 and 1987, and had since started declining.⁶ Green Peace (2013) reported that "the Philippine marine environment is faced with a host of problems and increasing pressures such as pollution, destructive fishing practices, habitat destruction and climate change." This is the reason for the dismal performance of the fisheries sector in the past few years.

To reverse the trend requires not only increased investments in the sector but also measures to arrest the declining productivity of fishery resources. Toward this end, the Bureau of Fisheries and Aquatic Resources (BFAR) has taken significant strides with judicious outlays for personnel, equipment and systems as well as programs to promote resource conservation. These are for the benefit not only of fisher households but also the general consuming public.

The highlight of the DA's efforts under the National Fisheries Program during the present administration are presented below:

Implementing RA 8550 (The Philippine Fisheries Code of 1998) — After seriously engaging both big and small stakeholders, BFAR, in collaboration with the Department of Interior and Local Government,

⁶NSCB, n.d., The Philippine Marine Fishery Resources: What will Remain for the Children of the 21st Century, <http://www.nscb.gov.ph/peenra/results/fishery/default.asp>

PROGRAM PERFORMANCE

successfully enforced four closed seasons from 2011 to 2014, more than a decade after the passage of RA 8550. This resulted in the recovery of fish stocks, including an abundance of galunggong or Round scad that in turn attracted more tuna that feed on them. This successful implementation was the reason the Western and Central Pacific Fisheries Commission extended the Philippines' access to the tuna-rich High Seas Pocket 1 of the Pacific Ocean until 2017.

The previous inability of the government to implement the law was partly due to insufficient manpower. In 2010, BFAR only had four fishery law enforcers for the entire country. Moreover, the equipment with which they were supposed to monitor the seas was outdated and lacking. The DA proposed and obtained the budget to develop a top-level three-month live-in training course for regulators with experienced police, military, and high-level community organizers as trainers. As of May 2015, there are 188 graduates of the course and they are ready to be deployed as professional fishery law enforcers.

BFAR also took steps to ensure that small fishers receive government services as mandated by RA 8550. It launched the Municipal Fisherfolk Registration (FishR) in 2014 and registered over 1.5 million of the targeted

1.8 million fishers. They are now qualified for PhilHealth and insurance coverage. Again, it was only under the present administration that the registration was funded and enforced.


A total of 252 fish landings designed to ensure that only the small boats of municipal fishers can dock will also be built throughout the country. These have been programmed to be completed in 2015.

The enforcement of closed seasons, the corps of trained and equipped fishery law enforcers, and services to fishers in the FishR will drive the resurgence of the fishery sector for years to come.

Enforcement, Management, and Regulation —

BFAR can now undertake intensified law enforcement, fisheries management, and regulatory functions through unified and inter-relational Monitoring, Control, and Surveillance (MCS) and other information systems. Its law enforcement and regulatory functions have been strengthened with the increase in manpower and logistics complement. From an initial four permanent staff in 2011, a total of 580 trained personnel⁷ will be deployed nationwide within the year. In addition,

⁷The new recruits have to complete a 3-month intensive basic training that covers legal, operational, technical and tactical training at the BFAR facility in Pagbilao, Quezon Nueva Ecija and other advance courses on law enforcement, regulatory and inspection, locally or internationally.



New fishery law enforcers graduate from an intensive three-month boot camp at the National Brackishwater Fisheries Technology Center in Pagbilao, Quezon



Despite the decline in its production, seaweeds remain as one of the top ten agri-exports of the country

the 14 existing MCS patrol vessels will be increased to 113 units, while four MCS stations are programmed to be established by 2016 in strategic areas of the archipelago.

Inter-agency relational databases, such as the Fishery Law Enforcement Management Information System (FLEMIS), Fisheries e-Licensing System (FeLiS) for commercial fishing boats, Municipal Fisherfolk Registration System (FishR), and Municipal Fishing Boats and Gears Registration System (BoatR), among others were also established during the period. BFAR likewise improved its Vessel Monitoring System (VMS) which tracks the activities of local and international fishing vessels to prevent poaching and other illegal fishing activities.

Post-harvest Facilities — BFAR establishes fish ports and ice plant and cold storage facilities to address the post-harvest requirements of sustenance fishermen. This entails the provision of smaller fish landings and market facilities in selected fishing communities nationwide. Some of these municipal fish ports (MFP) act as satellite ports for regional fish ports. The Ice Plants and Cold Storage (IPCS) program, meanwhile, helps satisfy the ice requirements of the fishing industry. It involves the provision of ice making machines and cold storage plants with varying capacities depending on the projected need.

From 2011 to 2014, a total of 13 MFPs and IPCSs were constructed, benefiting more than 25,000 fishers. Meanwhile, there are 50 MFPs and IPCSs in various stages of development, which will serve about 100,000 fishers.

EU Recognition — The Philippines gained recognition from the European Commission as a Responsible Flag/Coastal/Port/Market State against IUU Fishing. In April 2015, the European Commission lifted the “yellow card” issued to the Philippines in June 2014 owing to the country’s efforts to comply with international regulations and provide the necessary measures to deter, eliminate, and prevent illegal, unreported, and unregulated (IUU) fishing. This is among the fastest lifting of the issuance of a yellow card. Two important legal instruments, EO No. 154 s. 2013⁸ and RA 10654 s. 2014⁹, were passed during the Aquino Administration, which significantly helped the Philippines earn the said recognition.

These, together with the country’s inclusion in EU’s GSP+ category, should further bolster the export of Philippine seafood products to EU countries. For tuna and tuna-like products alone, the country’s export to EU countries constitutes about 40 percent of total production.

⁸Adopting a National Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing, and for other Purposes.

⁹Amending RA 8550.

PROGRAM PERFORMANCE

Production Support — Aside from its regulatory functions, the BFAR also provides production support for fishers in the form of aquaculture inputs, which include broodstocks, fingerlings, and seaweed propagules. In 2014, production support services were delivered to more than 140,000 fisher beneficiaries (see Table 13).

Moreover, to address the high poverty incidence among fishermen, the BFAR put together the Targeted Actions to Reduce Poverty and Generate Economic Transformation (TARGET) program for 2015.

The program is one of the government's action steps toward realizing its inclusive growth and poverty alleviation agenda. Within its first year, it aims to reduce poverty incidence among fishers by as much as 4 percent.

TARGET has four components: 1) livelihood, 2) resource enhancement, 3) resource management and protection, and 4) post-harvest and marketing support. As of May 2015, the BFAR was already in the stage of conducting social preparation of the beneficiaries.

Table 13. Production support provided to fishers, 2014.

Particulars	Target	Accomplishment	% Accomplished
Beneficiaries provided with production support services (e.g. planting materials, fingerlings, etc.)	206,354	141,582	68.61
Fish Seed Production And Distribution			
Broodstock Development and Maintenance (pcs.)			
Broodstocks maintained	396,085	393,822	99.43
Broodstocks distributed	3,959,956	4,212,280	106.37
Fingerlings/Seed Stocks Production and Distribution (in million)			
Fingerlings/seed stocks distributed	258.92	251.99	97.32
Fingerlings/seed stock produced	304.42	306.55	100.70
Fingerlings/seed stock procured	19.62	23.92	121.95
Seaweed Production And Distribution			
Seaweed propagules distributed (kg)	1,285,015	1,232,746	95.93
Seaweed farm implements distributed	17,117	12,100	70.69
Seaweed nurseries established	80	66	82.50
Seaweed tissue culture laboratory established/maintained	14	14	100.00



A farmer feeds his native chicken – a healthy alternative to commercial broilers – under the Philippine Native Animals Program (PNAP).

NATIONAL ORGANIC AGRICULTURE PROGRAM

Realizing the need for ecologically sustainable and environment-friendly farming, the Philippines enacted Republic Act 10068, more commonly known as the Philippine Organic Agriculture Act of 2010. This led to the creation of the National Organic Agriculture Program (NOAP), which seeks to promote, propagate, further develop, and implement the practice of organic agriculture in the country.

NOAP has the following components: institutional development and strengthening; research and development; production and technology support; extension and capability building; promotion, advocacy and education; market development; and results-based monitoring and evaluation.

Its mission is to achieve better farm incomes and sustainable livelihood by way of increased farm productivity and reduced expenses on farm inputs even as it promotes the protection of the environment. By removing synthetic chemical-based fertilizers and pesticides, which poses a hazard to humans and the environment, organic agriculture helps in improving the health of both the farmers and the consumers.

At the same time, the fertility of the soil is enhanced and the further depletion of natural resources is abated, giving the environment time to recuperate. Moreover, with diversification and reduced introduction of external inputs, organic farming practices promote disaster risk reduction and climate change resiliency.

Since NOAP was established, organic agriculture has been spreading. In 2010, only 14,150 hectares out of the 9.6 million hectares of agricultural lands in the country were devoted to organic farming, which yielded about 4,500 metric tons of products. Fast forward to 2014: the area devoted to organic farming has grown to over 83,000 hectares, the number of farms has increased to nearly 10,000, and the number of practitioners has swelled to almost 88,000. Production in 2014 reached 27,000 metric tons, six times the production in 2010.

Although the country's organic agriculture is still in its nascent stage, the Philippines is now the fifth largest producer of organic products in Asia. With enough government support, NOAP's target of converting 5 percent of the country's total agricultural land area to organic farming methods will be reached in the near future.

PROGRAM PERFORMANCE

NOAA Awards — For 11 years now, organic farming practitioners and enthusiasts have gathered for the National Organic Agriculture Congress. The last three years saw the conferment of the National Organic Agriculture Achievers Award, which recognizes outstanding accomplishments in promoting and practicing organic agriculture. Awards were given in the following categories: Provincial LGU, City/Municipal LGU, Provincial Organic Agriculture Focal Person, City/Municipal Organic Agriculture Focal Person, Agricultural Extension Worker, Farmers' Group, Small Individual Farmer, and Organic Farming Family.

INFRASTRUCTURE DEVELOPMENT

The development of farm-to-market roads (FMRs) is one of the priority infrastructure interventions under RA 8435 or the Agriculture and Fishery Modernization Act of 1997. Most production areas suffer from a lack of market access. Farmers, along with their carabaos, still cross rough roads and even rivers to bring their produce to the closest trading venue. Sometimes, the cost of transporting produce would be higher than their sales revenue, especially when the quality of the produce has deteriorated en route.

The program to construct and rehabilitate farm-to-market roads aims to provide rural communities access to main roads, thereby reducing post-harvest losses and transport costs. In the past, farm-to-market roads were typically either graveled or unpaved. Beginning July 2010, only concrete FMRs have been funded.

From 2011-2014, a total of 1,904.40 km of farm to market roads nationwide were either constructed and/or rehabilitated under the regular FMR program. In addition, a total of 1,109.70 km of farm to market roads in Mindanao has been constructed and/or rehabilitated under the Mindanao Rural Development Program from 2011-2014. These are all concrete roads that will not disappear in the next typhoon.

The DA also undertook upgrading of its old facilities and laboratories to conduct better research and development activities. In 2014, the upgrading of 51 livestock, 84 crop and 28 organic agriculture facilities was completed. A total of 51 laboratories were also upgraded.

MARKET DEVELOPMENT SERVICE

For all agricultural produce, an increase in production does not necessarily translate into an increase in income. Overly high production can cause the farmgate price to drop at levels below break-even point for farmers. While high supply and low prices benefit consumers, these are disadvantageous for producers. When farmers incur heavy losses in producing one crop, they tend to shift to another. Consequently, the production of that crop will decline and raise prices. It is a vicious cycle that leads to very unstable prices of agricultural products like fruits and vegetables. Imposing price controls, on the other hand, distorts the market.

To address this situation, the Agribusiness and Marketing Assistance Service (AMAS) implemented the Agri-Pinoy Trading Center (APTC) program. It aims to replicate the Sentro model of Sariaya in Quezon Province, which benefitted farmers by providing a venue where they can get the best price for their produce. By functioning as direct marketing hubs for farmers and fishers, APTCs reduce the layers of middlemen, resulting in increased incomes of about 15 to 25 percent for farmers and fishers as they themselves transact with buyers at the trading centers.

As of May 2015, a total of six out of the targeted 23 APTCs have been completed.

- Inaugurated in May 2014, Camarines Norte APTC in Vinzons with project funding of PHP44.2 million serves vegetable and fruit farmers in the nearby municipalities.
- Inaugurated in July 2014, the Pangasinan APTC in Urdaneta City worth PHP26.9 million serves lowland vegetable farmers.
- Inaugurated in September 2014, the Quezon Corn Processing and Trading Center (PTC) in Tayabas City worth PHP28.2 million serves corn farmers.
- Inaugurated in December 2014, the Isabela Multi-Commodity APTC in Roxas worth PHP121.3 million serves vegetable farmers and livestock raisers.
- Inaugurated in May 2015, the Dalaguete APTC in Cebu with project funding of PHP18 million had been operational before its launching. It will accommodate the vegetable farmers from all 16 barangays of the town.
- The Regional Organic Trading Center in Bagabag, Nueva Vizcaya with project funding of PHP18 million has been completed and will commence operations in July 2015.



Farmers in Roxas, Isabela learn to sort and grade vegetables brought to the trading post where institutional buyers and vendors are assured of the quality of the produce.

In addition to the establishment of APTCs in strategic areas in the country, AMAS also engaged in various market-related activities. Through the coordination of the AMAS, the Philippines has successfully participated in international trade fairs where the consistent best sellers are coconut-based products (e.g., coco sugar, coco water, coco juice, coco cream), banana chips, organic food products (e.g., muscovado sugar), as well as dried and fresh fruits such as pineapple, mango and banana.

Total revenues generated from the international trade shows that the DA participated in, funded and conducted reached USD326.6 million (PHP14.5 billion), while local and locally-held international events generated some PHP96.1 million.

CREDIT, GUARANTEE AND INSURANCE

Credit

The importance of credit in agricultural production can never be overemphasized. Simply put, like any other business, production cannot proceed without capital. Beginning 2011, the Agricultural Credit Policy Council increased its credit facilities and tailored these to address the specific needs of different borrowing entities.



As the umbrella credit program for agri-fisheries, the Agro-Industry Modernization Credit and Financing Program (AMCFP) aims to establish an efficient, responsive and sustainable credit system for small farmers, fishers, those engaged in food and non-food production, processing and trading, cooperatives, farmer and fisher organizations, and small and medium enterprises towards a modernized and self-sufficient agriculture and fisheries sector.

The Agri-Microfinance Program (AMP) has been providing qualified borrower organizations funds for re-lending to small farmers and fisher households and groups/organizations since September 2009. In 2014, the program was able to extend PHP92.94 million in loans to more than 8,038 beneficiaries through microfinance institutions.

For its part, the Cooperative Banks Agri-Lending Program (CBAP), which aims to enhance the responsiveness and capacities of cooperative banks and financial cooperatives to provide sustainable lending to agricultural borrowers, released PHP877.63 million in loans to some 22,709 beneficiaries.

The Sikat Saka Program (SSP), a component of the FSSP, is a special credit facility currently devoted to rice production. Its successful implementation has resulted in bringing total loans released to PHP881.84 million in 2014 with an impressive repayment rate of 98 percent. The program will be expanded to service other commodities and purposes in 2015.

To help increase access of small farmers and fishers to credit, two more credit programs — the Agriculture and Fisheries Financing Program (AFFP) and the Calamity Assistance Program — were launched.

PROGRAM PERFORMANCE

Launched in February 2014, the AFFP benefits farmers and fishers who are registered in the Registry System for Basic Sectors in Agriculture (RSBSA), a nationwide database of information and basic profile of farmers, farm laborers, and fishers. Initially, 20 provinces that have completed registration in RSBSA have been prioritized based on their poverty incidence, engagement in agricultural activities, and vulnerability to calamities. Credit assistance is provided to beneficiaries through the Land Bank of the Philippines and the People's Credit and Finance Corporation (PCFC). As of end-2014, the AFFP released a total of PHP55.07 million in loans to 3,378 small farmers and fishers listed in the RSBSA.

The Calamity Assistance Program, on the other hand, was launched in July 2014 to help agricultural households, who are currently enrolled in any credit

program under Agricultural Credit Policy Council, in calamity-affected areas regain their capacity to earn a living. The households may be assisted through a moratorium on payment of outstanding loan or interest-free financing for rehabilitation of agricultural production and other livelihood activities. In less than half a year, the program has assisted 515 farmers and fishers with PHP7.00 million in loans.

All told, in 2014 a total of PHP2.60 billion in loans were released to 51,605 small farmers and fishers through various lending facilities of the AMCFP and Agrarian Production Credit Program (APCP). From program launch, about PHP5.66 billion in loans have been released to 148,526 farmers and fishers nationwide.

Table 14. Loans released to farmers and fishers, January-December 2014.

Programs	Jan.-Dec. 2014		Cumulative (Program start to Dec. 2014)	
	Loans Granted (PHP million)	No. of Borrowers	Loans Granted (PHP million)	No. of Borrowers
Agri-Microfinance Program	92.94	8,038	770.23	68,362
Cooperative Banks Agri-Lending Program	877.63	22,709	2,669.54	53,621
Sikat Saka Program	881.84	5,918	1,238.21	7,283
Agriculture and Fisheries Financing Program	55.07	3,378	55.07	3,378
Calamity Assistance Program	7.00	515	7.00	515
Agrarian Production Credit Program	683.3	11,047	917.8	15,367
TOTAL	2,597.78	51,605	5,657.85	148,526

Guarantee

In May 2008, Administrative Order No. 225 established the Agriculture Guarantee Fund Pool (AGFP), an all-risk guarantee facility to encourage private financial institutions (PFIs) to expand their unsecured lending to small farmers and fishers engaged in food production. As of November 2014, the AGFP has guaranteed some PHP24.40 billion in loans from banks, cooperatives, small and medium enterprises and corporations, non-government agencies, and farmer-organizations. Total guarantee claims paid reached PHP650.50 million.

Insurance

The past few years have seen a significant increase in insurance coverage for farmers and fishers. This is a welcome development in the face of the billions in production losses agriculture incurred in the past four years due to calamities.

With the unwavering support of the DA and the increasing appreciation for insurance among stakeholders, the Philippine Crop Insurance Corporation (PCIC) sustained its tremendous growth performance in 2014. It provided insurance protection to 924,343 farmers and fishers, 24.30 percent more than the 743,589 farmers in 2013 (see Table 15).

About 70 percent or 647,040 farmers and fishers were granted full free insurance coverage under the following programs:

- Subsistence farmers and fishers listed in the Registry System on Basic Sectors in Agriculture (RSBSA) provided by the Department of Budget and Management;
- Free Agricultural Insurance for Typhoon Yolanda Affected Areas;
- Free Agricultural Insurance for Agrarian Reform Beneficiaries; and
- the DA-Land Bank of the Philippines Sikat Saka Program.

The number of farmers and fishers provided insurance coverage grew almost fivefold from 190,568 in 2011 to 924,343, while area covered grew almost fourfold from 210,336 hectares to 792,208 hectares. Amount of cover increased more than fivefold from PHP6.59 billion in 2011 to PHP35.62 billion in 2014. Over that four year, period almost PHP2.0 billion was paid to some 238,000 claimants (see Table 14).

Table 15. PCIC insurance coverage, 2011-2014.

Particulars	2011	2012	2013	2014	Total
No. of Farmers/Fishers	190,568	311,388	743,589	924,343	2,169,888
Area in hectares (Rice, Corn, High Value Crops)	210,336	274,162	506,027	792,208	1,782,733
Amount of Cover in PHP million	6,592.80	11,477.24	31,866.59	35,620.64	85,557.27
No. of Claimants	51,379	31,865	67,532	87,855	238,631
Indemnity paid in PHP million	401.35	226.09	539.08	738.45	1,905



**Bawang Festival
Ilocos**



**Heirloom Rice
Cordillera**



**Peanut Capital
Enrile, Cagayan**



**Dolores
Tramline**



**Sweet
Elena Mangoes
Zambales**



**Calamansi King
Oriental Mindoro**



**Green Harvest
Iloilo**



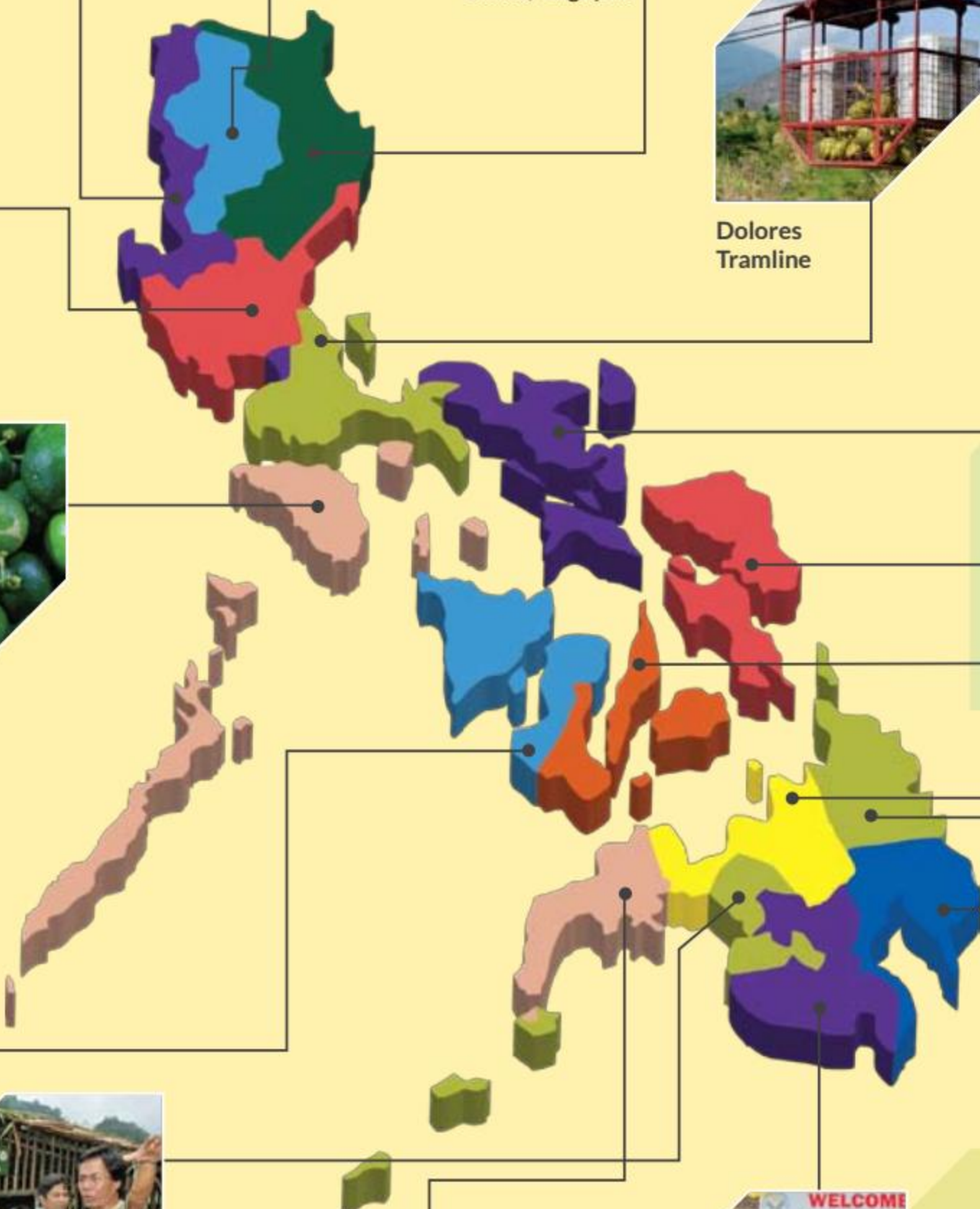
**From Arms to Farms
Kauswagan**



**Adlai
Production
Zamboanga**



**Ulat sa Bayan
SOCCSKSARGEN**





Coco Water
Processing
Pili, CamSur

AHON and
UMA-AHON
Leyte - Samar



Dalaguete
Trading Post



Coffee
Roasting Facility
Bukidnon

REGIONAL HIGHLIGHTS

The Regional Executive Director (RED) is tasked to coordinate the different DA-related offices in the region. In partnership with stakeholders, they implement programs that build on the strength of each region.



CARAGA
Cold Chain



Fusarium
Wilt Control
Davao



Soon to open: the country's biggest vegetable trading center in La Trinidad, Benguet

Cordillera Administrative Region

The Construction of the Benguet Agri-Pinoy Trading Center. The Benguet Agri-Pinoy Trading Center (BAPTC) is a PHP655.55 million project that has continuously entailed intense engagement among partner groups, and comprised a huge assignment following the negotiations led by the Secretary of Agriculture among the Provincial Government of Benguet, the Municipal Government of La Trinidad, the Benguet State University, the various farmer groups in the province of Benguet and adjoining provinces.

Spanning a 4-hectare area within the strawberry fields of the Benguet State University (BSU) compound in La Trinidad, the BAPTC is located well within the vicinity of two other trading posts and is accessible from the national road. It has three components: a) the trading bays, cold and dry storage warehouses, main utility center, site drainage and sewerage treatment facility; b) the commercial dormitory; and c) the parking areas for delivery trucks and refrigerated vans. This state-of-the-art facility is scheduled for completion and launching within 2015.

Rice Mechanization. The rapid acceptance of rice mechanization in the province of Kalinga was achieved through the Department's introduction of combine harvesters into the area. Providing model cooperatives with combine harvesters promptly led to the demonstration of the benefits derived from the machinery – namely, the reduction of harvest losses, harvest time, and costs. For instance, the combine harvester use of the Cabaruan Multipurpose Cooperative enabled its members not only to immediately recover their 15 percent counterpart for the equipment but also to buy a second one, which they fondly call *ading* ("sibling" in Ilocano).

The rising popularity of rice mechanization has not been limited to the cooperatives. Field reports have also indicated an increased investment in combine harvester by private individuals. In the city of Tabuk alone, at least 40 combine harvesters were competing to provide services to rice farmers, with the cost of service provided dipping to as low as PHP8.00 per bag or PHP0.16 per kg.

Ilocos Region

Increases in Garlic Production. Ilocos Norte and Ilocos Sur recorded significant garlic output increases in terms of area harvested, yield and production. The assurance of high product prices by traders resulted in a harvest area expansion of 8.9 percent with the addition of 172 hectares, bringing the harvest area up to a total of 2,100 hectares in 2014. Yield per hectare increased by 2.3 percent with the use of the growth hormone Gibberellic Acid (GA3), the increase in organic matter, and favorable weather conditions. The two provinces thus posted an 11.3 percent increase in production from 6,608 metric tons in 2013 to 7,353 metric tons in 2014. Garlic farmers also showcased the results of their hard work at the annual Bawang (garlic) Festival held in Sinait town in Ilocos Sur every first week of May, and among the festival incentives are the awards for the biggest, the longest, and the most creatively twined garlic bulbs.

The Agri-Pinoy Trading Center in Pangasinan. The Agri-Pinoy Trading Center was established in Urdaneta City, Pangasinan and launched in July 2014. With a project cost of PHP26.9 million, it has a daily trading capacity of 300 metric tons of assorted vegetables from Regions 1, 2, 3, 4B and CAR. It began to fully operate in November 2014 with a deployment of 18 LGU staff members manning four shifts for the regular monitoring of the trading center operations.

Cagayan Valley

Recognition of the Country's Peanut Capital.

In recognition of its significant contribution to the development of the local peanut industry, the DA declared the town of Enrile in Cagayan the "Peanut Capital of the Philippines." Home to some 800 peanut farmers cultivating 700 hectares of farmlands, Enrile's 1,800 metric tons of production contributes



Peanut-based products from Enrile, Cagayan

8 to 10 percent of the national supply. The DA-Regional Field Office (RFO) 2 provided the local government of Enrile 2,500 kg of peanut seeds for planting. Enrile's soil suitability, capability for year-round peanut production, and its farmers' receptive mindset towards the use of new technologies have resulted in an increased yield of 1.80 metric tons per hectare from 1.50 metric tons.

Because farmers continued to adhere to various technological innovations, such as the use of improved varieties and Boron and Gypsum fertilization, Enrile's peanut production reached an all-time high of 3.25 metric tons per hectare yield in 2014, posting a 200 percent increase over its average production. With potential areas of around 800 hectares more for expansion combined with improvements in production and yield, Enrile may eventually fill a part of the peanut import requirements.

Launching of "Itbayat Garlic Terraces of the Philippines". What had once been a barren, cogonal, pasture and margin area in Sito Pana, Raele, Itbayat had been successfully transformed into a 1.5-hectare

Batanes red garlic techno-demo farm yielding an estimated 3.70 to 4.00 metric tons per hectare. As a result, more than 400 hectares in the province – half of which is in Itbayat – will be developed for garlic production.

This success also led to the establishment of the garlic industry road map, which aims to increase both garlic production and farmers' income by providing assistance for organic production, certification, and marketing. In support of the road map vision of making the garlic production industry sustainable and globally competitive, the DA-Batanes Experiment Station (BES) spearheaded the Akus Harvest Festival in collaboration with Municipal Local Government Unit of Itbayat and members of the Itbayat Garlic Growers Irrigators Association in Batanes. The BES further envisions the development of the "Itbayat Garlic Terraces of the Philippines", an initiative that will also serve as an added attraction for the island.

Central Luzon

The Farmer Entrepreneurship Program. One of the winning initiatives formed in partnership with the private sector is the Farmer Entrepreneurship Program (FEP), a project of the DA in cooperation with the Jollibee Group Foundation, the Catholic Relief Services and the National Livelihood Development Corporation. The program aims to increase the incomes of small farmers through agri-enterprise and linkage to institutional markets. Such was its success in the assistance extended to the Kalasag Farmers Cooperative and Onion and Vegetable Producers Cooperative of San Jose, Nueva Ecija. Both cooperatives were able to deliver a combined volume of 501,910 kg of white onions to Jollibee Foods Corporation. Their onion farmers recorded a 339 percent

An Ivatan farmer shows garlic harvested during the Akus Harvest Festival in Batanes



REGIONAL HIGHLIGHTS

increase in net income from PHP2.01 per kg to PHP11.33 per kg – the highest recorded net income increase among all the farmer groups assisted by the FEP.

The Development and Production of Mango Varieties. While the Zambales Mango has always held the record for being the world's sweetest mango, with a total soluble sugar (TSS) of 23 percent, recent developments at the Ramon Magsaysay Technological University (RMTU) have led to the reproduction of a "Sweet Elena" mango variety that is sweeter and more superior than



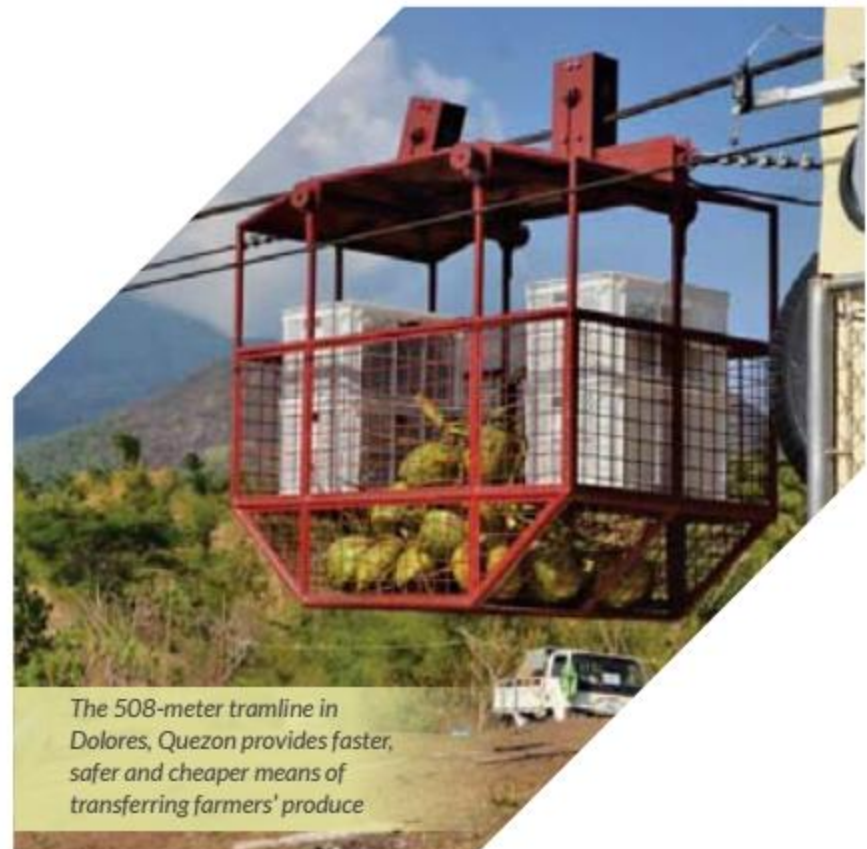
The world's sweetest mango – Sweet Elena produced in Zambales

regular "Sweet Elena" variety. Another superior strain currently being registered by its owner, Mrs. Hilaria Dela Cruz of Sabang, Sta Cruz, as a new variety at BPI is the "King Rudolf." This mango variety can be found only in Zambales and is distinct for its extra large fruit and specific sweet taste.

In the area of production, Athene A. Abad, a mango producer of Bangantalinga, Iba, Zambales is the first Good Agriculture Practices or GAP-compliant mango raiser in the Philippines, with his mango produce registering a zero pesticide residue for three consecutive years, thus increasing its demand and value.

CALABARZON

The Establishment of an Agricultural Tramline System. A 508-meter agricultural tramline system was established in Barangay Antonino, Dolores, Quezon in March 2014 to link farmers' production areas isolated by ravines, rivers and dense vegetation to the nearest access road in order to transport their products to



The 508-meter tramline in Dolores, Quezon provides faster, safer and cheaper means of transferring farmers' produce

the nearest market. With a hauling capacity of 350 kg per trip, a service area of 50 hectares, and a potential expansion area of 100 hectares, the tramline has greatly reduced the hauling and transport time of agricultural products from two hours to five minutes, lowering hauling costs and facilitating scheduled deliveries of agricultural produce. Currently, thirty farmers with coconut, stringbean, eggplant, tomato, camote, and cassava produce have been utilizing the system.

Trainings and Seminars for Dragon Fruit Production.

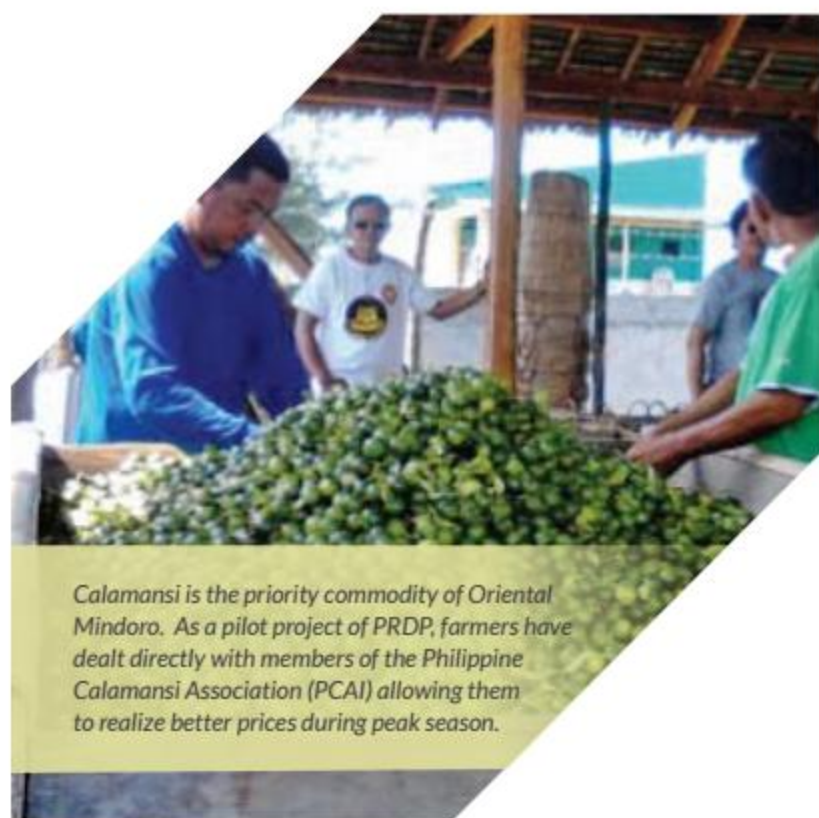
One of the selected model farms visited by Secretary Proceso J. Alcala and Senator Cynthia Villar successfully invested in dragon fruit production through the trainings and seminars provided by the DA. The farm operator of Sanchez Farm, an organic farm situated in Jala-Jala, Rizal, learned proper and specific farming practices for planting the red variety of dragon fruit, which bears fruit thrice a year and has a longevity period of 15 years. The training and transfer of knowledge resulted in the farm's total production of 5,000 kg in 2014 – with a selling price of PHP80.00 per kg – as well as service to the community by providing student trainees from nearby agricultural schools with technical knowledge on organic farming.

MIMAROPA

The Oriental Mindoro Calamansi Trading Center Project.

As the top producer of fresh calamansi due to its suitable soil and climatic condition, the island province of Oriental Mindoro has long been called the "Calamansi King" in MIMAROPA and contributes more than half of the total Philippine production. The Department selected the calamansi of Oriental Mindoro as a pilot commodity for

the World-Bank funded Philippine Rural Development Project's Enterprise Component because of its versatility and many uses – as the main source of calamansi juice concentrates and other beverages, as a flavoring for many local dishes, and as an ingredient for cosmetics, personal care products, and handwashing soap.



Calamansi is the priority commodity of Oriental Mindoro. As a pilot project of PRDP, farmers have dealt directly with members of the Philippine Calamansi Association (PCAI) allowing them to realize better prices during peak season.

Its selection has led to the creation of the Oriental Mindoro Calamansi Trading Center (OMCTC), the proponent endorsed by the Naujan Farmers' Association (NaFA) – an organization of farmers engaged in the production of rice, calamansi, coconut, and other fruits – with the assistance from the Provincial Local Government of Oriental Mindoro, the DA-Central Office and the DA-RFO 4B.

The OMCTC is envisioned to facilitate and enhance the value chain production and marketing system activities for calamansi farmers in the region. A buying station established in Barangay Poblacion III, Victoria will serve as a collection center where the selection, sorting, grading and quality control of fresh produce from the calamansi farms of Victoria, Socorro, and Pola will take place. The Trading Center established in Calapan City and will serve as both the buying station for Calapan City, Naujan, Baco and San Teodoro-based farmers' produce and the repacking station for produce coming through the Barangay Poblacion buying station. Transport logistics are covered by the PRDP's Infrastructure Component in the form of 2.9 km farm-to-market road construction projects to connect the barangays of Macatoc and Bagong Silang.

In the meantime that the OMCTC is not yet set up, NaFA made an initial transaction with the Philippine

Calamansi Association, Inc. (PCAI) through the Oriental Mindoro Federation of Farmers Association (OMFFA) covering September to December 2013. An initial capital of PHP237,996 was used for the procurement of 32,584 kg of fresh calamansi at PHP8.00 per kg for class A, PHP7.00 per kg for class B, PHP6.00 per kg for class C; and PHP2.00 to PHP4.00 per kg for *butirik* or undersized calamansi. In coordination with other OMFFA members, NaFA has also constructed a temporary shelter where trading takes place. Through AMAS/AMAD of DA-RFO 4B, the DA has supported the initial trading by providing a truck and plastic crates for the delivery of fresh calamansi. During the months of August to October 2014, purchase orders from Mary Gold Manufacturing Corporation amounted to PHP968,835 and a purchase order from Distilleria Limtuaco, Inc. amounted to PHP51,138.

With an initial capital requirement of PHP12.0 million, the OMCTC is expected to generate an average annual net income of PHP2.6 million at 8.1 percent of average sales. The enterprise guarantees improvements in calamansi production from an annual yield of 5.4 metric tons to 11 metric tons per hectare and increased incomes for farmers, which will be achieved through the application of organic fertilizer with sustained drip irrigation, the adoption of off-season fruiting techniques, and the provision of technical assistance and farm inputs, such as seedlings, and equipment, including tractors.

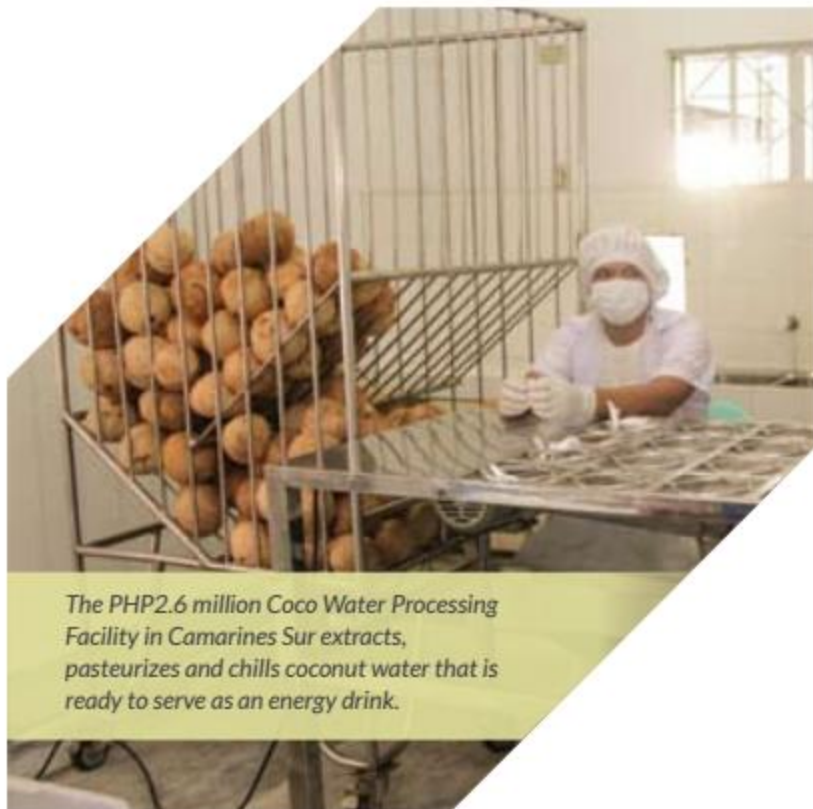
Bicol Region

Coconut Water Production. The Department is harnessing the potential of coconut water production as a feasible enterprise for coconut farmers to increase coconut industry revenues and improve the lives of those in the smallholder coconut farming sector. While the coconut industry currently discards about 85 percent of coconut water, this could actually be conserved and processed into value-added products.

With the growing demand for Philippine coco water in the international market (e.g. the United States, Netherlands and Australia) posing a challenge for the government to improve the country's production facilities, a Coco Water Processing Technology, Pilot Testing and Business Incubation Facility were thus inaugurated at the DA Regional Field Office 5 in Camarines Sur and a Memorandum of Agreement among PhilMech, PRDP, the Local Government of Camarines Sur and Central Bicol State University of Agriculture was signed in November 2014 to establish a Village-level Coconut Water Processing Center in Pili.

REGIONAL HIGHLIGHTS

Implementation of PRDP Assistance. Assistance through the PRDP is also being implemented on geonet production and processing subprojects in Libon, Albay. The project provides at least 350 additional jobs for the proponent group Tunay Tapat Lahing Pilipino Cooperative (TTLPC) members and other coconut farmers in the community. It also increases their incomes by PHP75.00 to PHP150.00, with the DA ensuring that the enterprise and infrastructure support projects proposed under the PRDP are feasible and viable.



The PHP2.6 million Coco Water Processing Facility in Camarines Sur extracts, pasteurizes and chills coconut water that is ready to serve as an energy drink.

Western Visayas

The Agricultural Competitiveness Enhancement Fund. Financial assistance has been offered by the Agricultural Competitiveness Enhancement Fund (ACEF) for projects and activities that enhance the competitiveness of the agriculture and fisheries sectors in the region. The Integrated Agri-Business Productivity Project is the first ACEF project in the region to fully pay its amortization. The small and medium enterprise Green Harvest Foods, Inc., whose markets include Western Visayas, Metro Manila, Negros Oriental, Cebu and even Europe, is a proponent company established in 1993 in Brgy. Blumentritt, Murcia, Negros Occidental. Engaged in manufacturing, processing and marketing of nata de coco, kaong and sweet pickles, the company proposed to expand its business due to the increasing demand for its products in the market. It was approved for ACEF financing in the amount of PHP13.6 million. Although the company experienced challenges and constraints during the initial phase of implementation,



Members of Green Harvest Inc. in Murcia, Negros Occidental prepare nata de coco, kaong and sweet pickles

it was able to gradually pay off the loan amortization throughout its recovery. The company finally paid the exact amount in full in December 2014.

Central Visayas

The Dalaguete Agri-Pinoy Trading Center. One of the 23 trading centers programmed by DA for operation in 2014 is the Dalaguete Agri-Pinoy Trading Center (DAPTC). Built at the cost of PHP17.2 million (PHP12.7 million from the DA and PHP4.5 million from the municipal LGU), the facility can accommodate a maximum of 70 metric tons of produce per day, 8,310 participating farmers and 100 traders.

Prior to the establishment of the DAPTC, only eight barangays in the municipality could supply vegetables to the center at an average of 40 metric tons per day. With the presence of a better trading center like the DAPTC, the participation of the other eight barangays will ensure an increase in the supply of vegetables and rootcrops.

Simultaneous profiling and registration of farmers were conducted in the eight barangays that currently participate as suppliers, while the remaining eight barangays are soon to follow. Through a market matching scheme between producers and suppliers conducted by AMAS and the regional AMAD, an agreement for a weekly supply of vegetables was made between the Dumalan Farmers' Association and Eden Corporation in Cebu City. Various capability-building activities like training seminars on Good Agricultural Practices and product handling and storage are ongoing.



Farmers bring their produce to the newly-opened Dalaguete APTC in Cebu to serve major markets like Carbon in Cebu City and markets in adjacent towns.

Part of the DA's commitment is to provide trucks to haul the produce from the designated pick-up points within the production areas – currently located in Sitio Gran China, Barangay Mantalongon and Sitio Margaha in Barangay Tabon – to the DAPTC.

Eastern Visayas

Rehabilitation Efforts for Fishers Affected by Typhoon Yolanda. When typhoon Yolanda struck the Visayas and Northern Palawan in November 2013, the fishery sector was devastated. The Bureau of Fisheries and Aquatic Resources (BFAR) pursued a rehabilitation initiative where the government and the private sectors help the fishing communities to recover from the damage caused by Yolanda.

A total of 30,000 units of newly built and repaired boats and materials that were distributed among municipal fishers of Eastern, Central and Western Visayas, and Palawan enabled them to resume their fishing activities beginning November 2013. AHON! Initiative has surpassed its boat rebuilding target, with about 5,000 units of totally damaged or lost fishing boats replaced with fiberglass units.

Rehabilitation efforts include the construction of 5,000 fiberglass boats for Eastern Visayas. A total of 18,000 units with 5.5 horsepower (hp), 7.5 hp and 12 hp marine engines, 50,557 units of line gears and 35,224 units of gill nets were distributed for motorized and non-motorized fishing boats. Women fishers associations were provided with post-harvest equipment, particularly chest freezers, to increase the market value of their products.



Boats for distribution to affected fishers in Leyte under the AHON! Initiative of BFAR.

Around 8,650 seaweed farmers were provided with 865 metric tons of seaweed propagules, 13,840 rolls of 1,000 meter polyethylene ropes, 3,460 units of plastic twine, and 356,759 pieces of plastic floaters as farm inputs.

Zamboanga Peninsula

Adlai Production. "Ating Damihan ang Lupang Adlai ang Itinanim" summarizes the thrust of the Adlai Program of the Bureau of Agricultural Research comprising 32 projects in partnership with state universities and colleges in different areas of the country. Adlai (*Coix lacryma-jobi* L.) – easy to overlook due to its grass-like appearance that blends well with other wild plants – has a stem that grows from 1 to 3 meters tall. It bears tear-shaped grains that can be a food staple for many indigenous people, particularly those in the highlands. This is because adlai can produce a good yield in areas where rice and corn can hardly grow like the highlands. It can tolerate low pH, poor soil quality, waterlogging and is resistant to pests.

In Zamboanga, the Adlai Production Commercialization Program was initiated in 2011. In 2014, a total of 311 hectares were planted to Adlai by more than 600 farmers that produced 248,800 kg. This was sold by farmers at PHP10.00 to PHP12.00 per kg in raw form in the market outlets but could sell up to PHP60.00 per kg if processed into grits due to its health benefits.

The First National Adlai Grand Farmer's Field Days and Techno Forum was held in Zamboanga Peninsula in September 2014 to celebrate this feat.

Assistance for Internally Displaced Persons. "Convergence for the Promotion and Establishment of Weaving Industry for Tepoh, Badjao Women and Their Families" is a program that benefits



Badjao women and elders weave mat from pandan during a training-demo

Internally Displaced Persons (IDPs) in Zamboanga Peninsula who were victims of the armed conflict between government forces and Muslim rebels. The participating IDPs are from different tribes within four barangays that were relocated in Mampang, Zamboanga City.

Through the collaboration of DOLE, DA-PhilFIDA Region 9, DOST, DSWD, DENR, TESDA, LGU and Western Mindanao University, the program promotes and develops *tephoh* (Badjao term for mat weaving). It ensures the weaving industry's sustainability and economic viability as a livelihood project for Badjao women, other Indigenous Peoples, and their families. To sustain the project, three hectares of pandan farm will be developed while technical assistance will be provided to farmers.

Northern Mindanao

Technology Demonstrations and Exhibits. To promote the creation of more clusters of corn farmers to further strengthen the sector as the country ensures the competitiveness of its agricultural products in the ASEAN and global markets, the DA-RFO 10 held a technology demonstration event at the October 2014 National Corn Congress Farmers Field Days in partnership with private seed and fertilizer companies. The event demonstrated the latest trends and technologies in corn farming that position corn as one of the country's champion commodities, and was well attended by farmers, investors, students, and the public.

The agri-machinery show and exhibit held in November 2014 showcased state-of-the-art technologies in planting, harvesting, drying and processing. Through its annual Farmers' Field Day and Technology Forum, DA-RFO 10 exhibited 60 agri-based technologies that could increase production, yield, and profit of farmers despite the challenges of



The "Kape Maramag" produced from the coffee roasting facility provided through the HVCDP in Bukidnon.

climate change and ASEAN economic integration. The local government of Northern Mindanao set up booths displaying their best agri-fishery commodities and latest products. Farmers and other stakeholders learned how technologies for rice, corn, vegetables, root crops, white potato, coffee, organically grown crops, and livestock could increase farm productivity and rural incomes.

Nurturing the Small Coffee Farmers and Producers Industry. To complement the establishment of a coffee roasting facility in Region 10, small coffee farmers and producers were encouraged to retail roasted coffee in the community for additional income. The DA allocated funds and procured a coffee machine with roasting system, a commercial grade coffee grinder, a cutter, foot sealer, foil and a weighing scale, all of which were given to the Maramag Federation of Rural Improvement Club (MFRIC) for LGU-Maramag and Katilingbanong Pamahandi sa Mindanaw Foundation Inc. (KPMFI). The MFRIC then started its coffee business operation in 2012 with a capital of PHP20,000, generating a gross income of PHP280,000 by September 2013. About 1,271 kg of coffee were produced by 152 farmers in the area and its vicinity for roasting. Farmers in Maramag were encouraged to plant more coffee beans and to avail themselves of the higher prices offered by MFRIC. In 2014, the DA provided additional 20,000 coffee seedlings for its 20-hectare expansion.

Davao Region

Rice Production Achievements and Awards. The area of rice harvested in Region 11 increased from 103,475

hectares in 2013 to 106,911 hectares in 2014, as did regional rice production by 7.25 percent last year from 421,692 metric tons in 2013 to 452,267 metric tons in 2014. The region also placed in the top three in terms of yield, with 4.36 metric tons per hectare, higher than the national average yield of 4.00 metric tons per hectare, with three provinces of the region – Davao del Sur, Davao Oriental and Compostela Valley – making it to the list of top ten rice-producing provinces in the Agri-Pinoy Rice Achievers Award (APRAA) 2014.

Other awardees from the region include: Banaybanay, Davao Oriental as outstanding municipality; San Isidro Farmers Association as outstanding irrigators association; and Albatana B. Malabis of Davao del Norte and Noli S. Bingan of Davao del Sur as outstanding local farmer technicians. Twelve agricultural extension workers were also recognized.

DA-RFO 11 turned over various farm machineries and equipment worth PHP31.4 million – including tractors, knapsack sprayers, a cassava grater, a mini corn mill, solar dryers, vegetable kits and garden tools, and rice threshers – to 153 farmers and stakeholders on October 23, 2014. Other interventions included the enhancement of demo farm and learning center for organic goat, tilapia, rice, fertilizer and bio pesticide production as well as the organic trading post, which are undertaken in partnership with LGUs. A tablea processing plant, coffee/cacao roaster and rainshelter were turned over to the Samahang Magniniyog ng Tawan-Tawan in Davao while nethouses and nurseries were granted to other farmers' cooperatives. Beneficiaries were given both an orientation and a technology demonstration on site testing.

Introduction of Banana Variant Resistant to Disease.

The DA-RFO 11 Integrated Laboratories Division introduced GCTCV (Giant Cavendish tissue-culture variant) 219, an alternative banana variety that can resist Panama disease, which has been threatening the second largest agricultural export item in the Philippines by attacking the root system of banana plants, causing discoloration and wilting until the plant dies. Also known as the *Fusarium* wilt of banana, it is a deadly disease that destroyed the prime banana cultivar "Gros Michel" in the 1950s.¹¹

With about 3,000 hectares of banana plantation already abandoned in Mindanao due to Panama disease, the introduction of the banana variety is timely. Apart from its resistance to the deadly disease, the variant also offers added benefits, such as its sweeter taste over the commercial Cavendish variety

¹¹ What is Panama disease? Panama Disease. Retrieved from <http://panamadisease.org/en/theproblem>.



"Grande Naine", its significantly higher starch levels (which convert into sugars during ripening), and its possession of more titratable solids and fewer acids. The DA-RFO 11 is providing both the seedlings and the training on how to grow GCTCV 219 variety.

SOCCKSARGEN

Information Caravan and Equipment Distribution.

The DA-RFO 12 continued its conduct of the information caravan dubbed "Ulat sa Bayan", a quarterly reporting of accomplishments of the DA and its attached agencies. A total of PHP958 million worth of farm machineries and equipment, projects, and other interventions were distributed to 201 farmer groups and 16,792 farmers during these events in 2014.



A farmer receives palay seeds during the Ulat sa Bayan in North Cotabato

REGIONAL HIGHLIGHTS

Revival of Agricultural TV Program. On October 4, 2014, the DA-RFO 12 also revived the TV program “Agri-Tayo SOCCSKSARGEN”, a one-hour weekly program consisting of various segments that present the beauty and strength of agriculture and highlight the contribution of the farmers and fishers of the region to economic development. It also served as a venue for reaching farmers who wished to avail of DA projects. A total of 13 episodes were produced in 2014 aired through the help of different cable TV providers, TV station and TeleRadyo stations.

Collaborative Support for Cassava Production.

The national government supports the Production and Marketing of Cassava Granules in South Cotabato with the financial assistance of the World Bank through the PRDP and in collaboration with the LGU and farmers’ groups in the province. With close to 500,000 farmers and laborers relying on cassava as source of livelihood and a record yield of 34.5 metric tons per hectare in 2012, the highest in the country, South Cotabato has become a significant player in cassava production not only in Mindanao but nationwide. At least 32,000 metric tons of cassava granules were produced, accounting for 83 percent of the total cassava production in SOCCSKSARGEN.

The PRDP and Polomolok MLGU will share the cash equity in an 80:20 arrangement, with the project beneficiary Polo Samahang Nayon Multipurpose Cooperative (POLOSN MPC) providing at least 20 percent of total project cost in cash or in kind. By providing the cassava farmers from 11 municipalities

in South Cotabato with inputs, planting materials, farmers technology and financial assistance as well as purchasing the farmers’ produce, the POLOSN MPC presents an arrangement that provides a sure market for their crops at a competitive price.

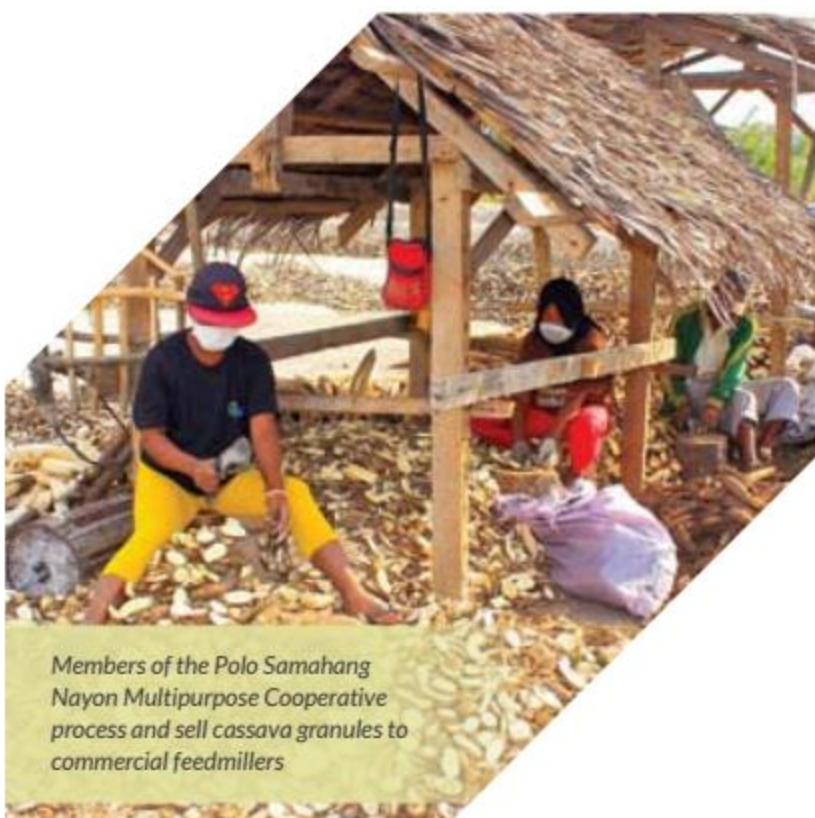
Together with four other farmers’ cooperatives (namely, Topland MPC, San Jose MPC, Self-Reliant MPC, and Poblacion Buto San Isidro Lampitak Agrarian Reform Beneficiary MPC), the POLOSN MPC will process and sell cassava granules to commercial feedmills in the province, such as San Miguel Foods and Agri Min – both of which collectively require 100,000 metric tons of the processed cassava annually.

CARAGA

The Philippine Cold Chain Project. On February 7, 2014, Winrock International Institute of Agriculture Development (Winrock) and the United States Department of Agriculture launched the Philippine Cold Chain Project (PCCP) at the US Embassy in Manila with the signing of the Memorandum of Understanding between Winrock, the five governors of CARAGA, and the mayor of Butuan City. Partnerships were formalized with the regional offices of the Departments of Agriculture, Trade and Industry and Agrarian Reform as well as with other institutions in order to strengthen project implementation.

Implemented by Winrock in five provinces in CARAGA covering 250 barangays for a four-year period spanning September 2013 to July 2017, the PCCP involves the following: developing cold chain systems; building the capacity of producers to improve production and quality; training of producers and processors in improved production techniques, post-harvest handling, marketing and phytosanitary practices; and providing grants and loans for farm equipment and inputs. To further expand trade of agricultural products, the project also aims to develop public-private relationships, facilitate trade relationships, research export opportunities, build agricultural extension capacity, and promote food safety concerns.

Within its first year of implementation, the PCCP produced successful farmer-entrepreneurs. Rosalina Caliwán (from Dinagat Island) and Meriflor Lepio (from Baybay, Surigao City), both recipients of micro-finance assistance and technology trainings for lobster culture raising, applied new knowledge acquired through training on desirable stocking density of lobster per cage, for example.



Members of the Polo Samahang Nayon Multipurpose Cooperative process and sell cassava granules to commercial feedmillers



Equipped with new knowledge to maximize their produce and income, Rosalinda and Meriflor have realized increased incomes, enabling them to invest in pump boats and bigger cages.

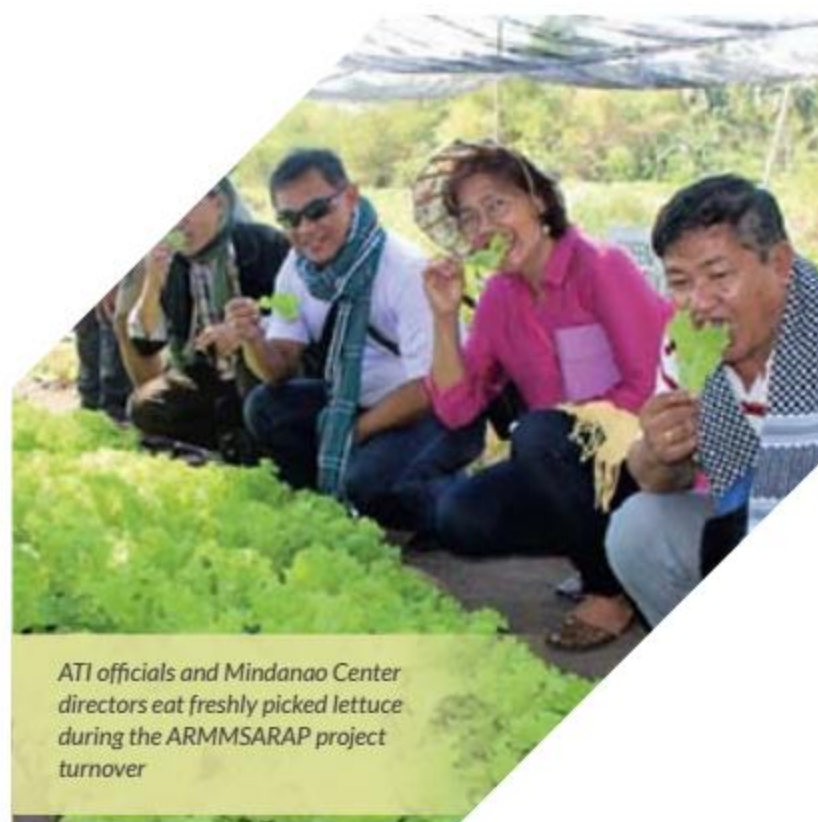
Rene P. Apas, a member of the Crossing Luna-Beawan Vegetable Producers Multi-purpose Cooperative in Agusan del Sur, also used the improved agricultural technology he learned from the Farmers' Field School provided by the project to establish a 1,500 sq.m. area for ampalaya and tomato production. He was able to achieve a yield of 3,717 kg and a net income of PHP66,971 – a profit margin that he was never able to achieve in the past 20 years.

Autonomous Region of Muslim Mindanao

Partnership for Livelihood Projects and Facilities Construction. In July 2014, the ARMMSARAP project "Organic Agriculture cum Livelihood and Installation of Basic Facilities" crafted by ATI and ACES Polytechnic College was launched in Brgy. Balas, Lamitan City, Basilan, the birth place of Abu Sabaya, commander of the notorious Abu Sayyaf group. With the aim of providing "lifelihood" (life and livelihood) to marginalized farmers and fishers in Mindanao through organic agriculture and aquaculture, the project is a multi-agency initiative consisting of the government of ARMM, Anak Mindanao (AMIN) partylist,

and EarthSoul solutions, in cooperation with ATI and ACES Polytechnic College. ATI provided PHP8.7 million for the project while the ARMM provided PHP8.6 million as its counterpart.

The construction phase of the facilities began in September 2014, after which the ARMM and AMIN selected 54 participants to be trained by ACES Polytechnic College in three main components: formulating and producing organic aquaculture feeds



ATI officials and Mindanao Center directors eat freshly picked lettuce during the ARMMSARAP project turnover

(farm inputs); raising organic bangus and other various species in fish cages (bangus, lapu-lapu and lobster production); and processing organic fishery in bottles. They were also trained in the organic production of lettuce and free-range chicken. To date, fish cages, organic vegetable gardens and free-range chickens are currently being maintained by 18 local residents trained in organic agriculture production.

For the first time in this war-torn area of Basilan, the government's presence and assistance were finally felt for the first time, and the construction of the facilities (including Halal-compliant aquaculture processing facility, feed mill, dormitory and training hall) completed through this partnership in April 2015 is just the beginning.

DA BUDGET IN PHP '000, 2010-2014

	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014
Total Appropriations	41,170,447	35,198,376	53,255,820	65,069,485	70,115,749
Distribution Per Program					
Irrigation Projects - NIA	13,599,386	12,790,650	24,454,052	26,829,295	21,111,849
Farm-to-Market Roads	6,554,500	2,500,000	5,000,940	7,054,680	12,000,000
National Rice Program	3,531,602	4,317,216	6,181,166	7,454,081	6,900,451
National Corn Program	958,422	483,642	950,739	1,524,301	1,796,965
National High-Value Crops Program	2,054,011	926,867	1,336,658	1,356,658	1,673,447
National Livestock Program	775,711	682,330	1,027,861	1,027,861	1,350,444
National Fisheries Program	2,712,727	1,792,912	2,400,505	3,655,650	4,181,910
Organic Agriculture	500,000	900,000	927,200	927,200	878,486
Quick-Response Fund	-	-	500,000	1,000,000	500,000
Credit Facility to Agrarian Reform Beneficiaries	-	-	-	1,000,000	-
Market-Oriented Program/ Trading Center	500,000	675,082	911,755	884,955	231,899
Other Support Programs	7,634,261	6,356,508	5,719,456	7,459,021	8,088,225
Locally-Funded Projects	1,586,193	2,911,181	1,450,577	2,886,192	9,762,551
Foreign-Assisted Projects	763,634	861,988	2,394,911	2,009,591	1,639,522
Distribution Per Office					
OSEC & its Bureaus & Attached Agencies	30,251,844	26,312,704	38,867,091	44,335,460	36,493,543
CAR	549,251	924,717	1,228,670	1,183,868	2,171,960
Region I	677,754	577,427	864,574	1,144,619	1,921,711
Region II	872,767	646,111	1,184,320	1,598,847	1,790,229
Region III	1,058,072	942,892	1,438,685	1,507,415	1,882,598
Region IV-A	800,533	655,817	1,000,146	1,425,355	1,848,873
Region IV-B	522,005	439,395	946,394	1,092,529	2,058,253
Region V	768,037	535,683	1,136,487	1,551,240	2,816,470
Region VI	590,694	593,421	1,168,968	1,915,702	2,520,537
Region VII	692,256	485,682	658,166	1,052,273	2,111,137
Region VIII	587,215	472,506	847,961	1,380,236	2,640,582
Region IX	684,939	397,233	687,309	1,131,642	1,718,190
Region X	530,527	488,994	723,857	1,186,553	2,150,801
Region XI	904,455	552,897	937,969	1,342,613	2,008,056
Region XII	1,012,955	477,621	795,093	1,295,630	3,005,446
Region XIII	562,397	374,375	557,208	1,043,783	2,176,045
ARMM	104,746	320,901	212,922	881,720	801,318
Budget Performance					
Allotment Received	37,211,596	37,329,934	49,964,118	65,278,472	62,650,809
Year-End Obligation Incurred	29,697,208	25,619,285	45,130,278	59,406,008	49,467,350
Utilization Rate as of End of Each Year	79.81%	68.63%	90.33%	91.00%	78.96%

Note: Allotment Received and Obligation Incurred as of March 31, 2015 only and excluding the Continuing Appropriations.

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